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ABSTRACT

The purposes of this teaching handbook are to provide building blocks necessary for developing a course of study for secondary students in economics and to present resources and references. It is arranged in seven sections. An introductory section describes some economic organizers--the models structure and methods of analysis--that are useful for high school teaching. Section two gives short summaries of the major approaches and rationales for teaching economics, and of different schools of economic thought. Section three describes different approaches to teaching and highlights the importance of motivating students. A series of teaching strategies involving students in active learning is the focus of section four. Section five offers some guidelines for examining economics curriculum materials and reviews a number of resources that form the basis of an economics teacher's personal library. Organizations that offer resources and services for economic educators are identified in section six. The final section provides a selective list of up-to-date resources in the Educational Resources Information Center (ERIC) data base. (Author/NE)

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PREPARING TO TEACH ECONOMICS:
APPROACHES AND RESOURCES
Revised and expanded edition

By Suzanne W. Helburn
and James E. Davis

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Social Science Education Consortium, Inc.
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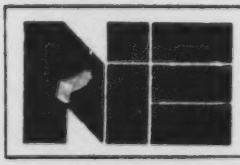

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PREFACE

It gives us great pleasure to revise this monograph, originally written a decade ago but evidently still in demand by teachers of economics at the junior and senior high school levels. Both the economy and the field of economics have gone through difficult times since the first edition. In 1971 we had not yet witnessed Watergate, and "stagflation"--now a chronic problem for the United States and the Western industrialized world--had not yet been identified as an economic problem. Conservatives and liberals alike agreed when the statement was made that "we are all Keynesians now." In ten short years we have seen the end of the postwar economic boom and of the role of the U.S. economy as the world's stabilizer. Eventually, we must learn to cope with world competition, the sluggish growth combined with double-digit inflation which we call stagflation, the re-emergence of the cold war, and the powerful development of the antinuclear movement in Europe which threatens the NATO alliance. These are times that try men's (and women's, too) souls.

The economics profession has been shaken by these events. Economics, thought of by its practitioners as the queen of the social sciences, is basically a policy-oriented science. Economic theory construction and empirical research are carried out mainly to shed light on what makes the economy tick and what changes in government policy are needed to improve performance. In the 1970s, as the standard policies failed to maintain stable growth, more and more economists began to question the Keynesian orthodoxy, which emphasizes the importance of stimulating and controlling aggregate demand. Political conservatives returned to an older orthodoxy, popular in the 1920s, which emphasizes the importance of free-market forces in automatically regulating the economy and the dangers of government interference. Economists on the left, who have begun to be taken more seriously, look at the structural characteristics of late capitalism as the cause of our current economic problems.

Since President Reagan's election in 1980, we have experienced a major policy shift toward the conservative principles of supply-side

economics. The main objective of the Reagan policy is to dismantle the New Deal and to use stringent monetary controls and reductions in domestic spending programs to recreate the free-market environment which will allow the automatic forces of demand and supply to work.

Economics education in the schools has changed too, reflecting the concerns of the community about the shaky economy. Ten years ago we emphasized the importance of learning Keynesian economics as part of citizenship training, or for its own sake as a necessary discipline for everyday life. Today, there is a rising concern on the part of the business community that students should be taught to appreciate the free-market economy and to use economic thinking in their personal lives. Teachers today have more choices in designing their programs, but they are also subject to more pressures from special-interest groups that would like to influence the curriculum. In this monograph we have tried to provide the building blocks necessary for developing a sound course of study in economics as well as resources and references that teachers might find useful.

Learning economics is even more important today than it was ten years ago. We all realize that our major problems are economic in nature. During such unsettled times it is important for students to know that there is disagreement about the causes of persistent economic problems. Furthermore, there is growing recognition that there are no easy solutions. We are in for some hard times, and we need to learn to live in a complex world. There are no panaceas--and we hope that there are no pollyannas.

Suzanne W. Helburn
James E. Davis

Boulder, Colorado
December 1981

1. AN OVERVIEW OF ECONOMICS

Introduction

The strength of a curriculum depends on its ability to empower students--to teach them to use powerful ideas, theories, methods of thinking, and ways of valuing. A major objective of formal teaching, particularly in economics and at the high school level, is to provide students with the intellectual tools that will help them understand their world and become effective, active participants.

Given these overall educational objectives, any curriculum or course of study must have the following characteristics:

--It should be founded on a well-articulated, powerful, learnable content base. It is important to limit content to what is important and useful, but also to show connections, to help students build a structure of knowledge that fits together in their own minds.

--It should be composed of activities that involve active student participation. Students need practice in using new tools and ideas, and they need to practice through exercises or activities which they see as relevant or important.

This introductory section outlines a content base that serves as a useful framework of ideas, theories, and skills. These basic and fundamental components of a knowledge base might be referred to as curriculum organizers. They are central to the curriculum, and they become the intellectual organizers that students learn to use in order to understand and deal with the economic aspects of their lives.

What is crucial to this approach to teaching is to recognize that it is better to teach a few powerful things well than to try to cram a lot of disconnected information into a course and into students' heads. The first step in curriculum design, then, is to choose the basic content and skill objectives--the course organizers.

The remainder of this section describes some economic organizers--the concepts, structure, models, and methods of analysis--that are useful for high school teaching. Not everyone would agree with these choices; because of the current controversy in the discipline, there are different

views about what constitutes an appropriate set of course organizers. Section 2 deals expressly with this issue by providing short summaries of the major approaches and rationales for teaching economics, and of the different schools of economic thought which are vieing for attention. It is important for every teacher of economics to choose organizers consistent with his or her view of economics and reasons for wanting to teach the subject.

The importance of active student participation has already been mentioned. Section 3 describes different approaches to teaching and highlights the importance of motivating student participation. Section 4 presents a series of teaching strategies that involve students in active learning. Section 5 offers some guidelines for examining economics curriculum materials and reviews a number of resources that might form the basis of an economics teacher's personal library. Section 6 identifies organizations that offer resources and services for economic educators, and the final section contains a very selective list of up-to-date resources in ERIC.

Concepts and Structure

Concepts are abstractions. They are ideas that are put together--generalized--from specific cases. "Nickel," "dime," and "quarter" are not very useful concepts. "Money" is more useful. "Monetary system" is even more useful. The point is that a concept identifies a series of attributes which belong together and which have meaningful relationships to each other.

In science, concepts form the basis for classification. How we classify things, how we think about the world, how we see the relationships among concepts--these are the building blocks of knowledge. A structure shows the relationships of parts to a whole. In science, the relationships of concepts to each other can be called a structure. For example, the concepts "production" and "distribution" may be related to each other in a structure called the "economy." The economy can be thought of in a structural relationship to the "physical world" and to the "society." In this section we discuss two structures. The first is a structure of economics; the second shows the relationship of the economy to society and to the physical world.

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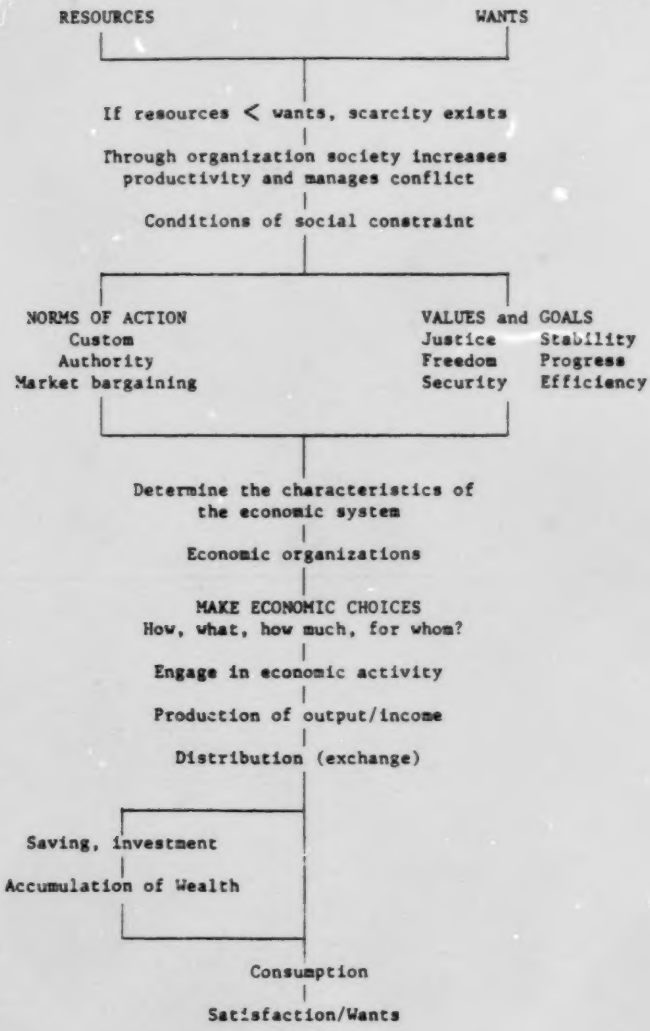
Economics, as a subject of study, exists because it is necessary for people to allocate resources among competing uses. The study of economics is not really very mysterious. It deals with how people organize to supply themselves with goods and services that will satisfy their material wants. The structure presented in Figure 1 shows the traditional way in which mainstream economists look at the discipline of economics.

Figure 1

A CONCEPTUAL STRUCTURE OF ECONOMICS



This structure can be explained as follows:

--Economics is a social science that studies social behavior as the relationship between ends (wants) and scarce means (resources) which have alternative uses.

--The fact that human wants are greater at any one time than available resources creates a condition of scarcity and the need for people to manage the resulting conflict.

--The cultural and physical environment sets the constraints within which an economy functions--the norms for decision making (custom, authority, and market bargaining) and the society's values and goals (the relative importance of justice, freedom, security, stability, progress, and efficiency).

--Studying an economy means studying the society's system of economic organizations to determine how effectively these organizations perform their function in the system (microeconomics) and how effectively the total economic system operates to satisfy the people's material wants (macroeconomics).

--A society's economic institutions are the total group of organizations which perform economic functions. They make the four basic allocation decisions (how, what, how much, and for whom) about the use of scarce resources and, on the basis of these choices, carry out the primary economic activities.

--The process of allocating scarce resources involves social relations between people with differing and competing wants; therefore, the process involves a normal condition of conflict. Economic organizations manage conflicts and change over time. In so doing, economic organizations change to reflect the relative power of the contending interest groups.

--Societies make scarce resources more productive through specialization of production. Nevertheless, there is a limit to the productivity of a resource, which is expressed in the law of diminishing returns.

--The specialization of production has created the need for specialized distribution and exchange; money facilitates exchange. The dependence of people on money for purchasing power leads to the creation of

forms of credit, which further facilitates exchange by expanding people's purchasing power.

--Markets--where sellers compete to satisfy buyers' demands and where buyers compete for the available supply--develop. Competition determines prices, helps ration the supply, and induces sellers to react to buyers' preferences. Market structure--demand and supply conditions--varies considerably from one market to another, affecting both the nature of competition and the relative market power of individual buyers and sellers. In this century the U.S. economy, which is made up of millions of business firms, has become increasingly dominated by powerful corporations with considerable market power.

--Through saving and investment, industrialized societies accumulate wealth (capital), which increases the productivity of resources and promotes economic growth. Historically, this growth has brought about qualitative changes as well--the development of a balanced industrialized economy and the economic organizations that carry out economic activity: businesses, unions, government agencies.

--An economic system changes through a continual process of want-satisfaction and want-creation.

The Economy, the Physical World, and Society: A Dynamic Systems View

In these times we would be remiss if we did not consider the study of economics in relation to the physical world and the society as well as the study of economies as dynamic interdependent systems. Daily we are confronted with issues and problems that require us to build intellectual bridges between a subject we are studying (in this case, economics) and other areas of knowledge. Furthermore, we must study the U.S. economy as part of the world economy. Figure 2 presents a model of the interactions between the physical world, society, and the economy. This model illustrates the effects of change for any one economic system (e.g., the United States) seen as isolated from other economies (a gross oversimplification) and for the world economy.

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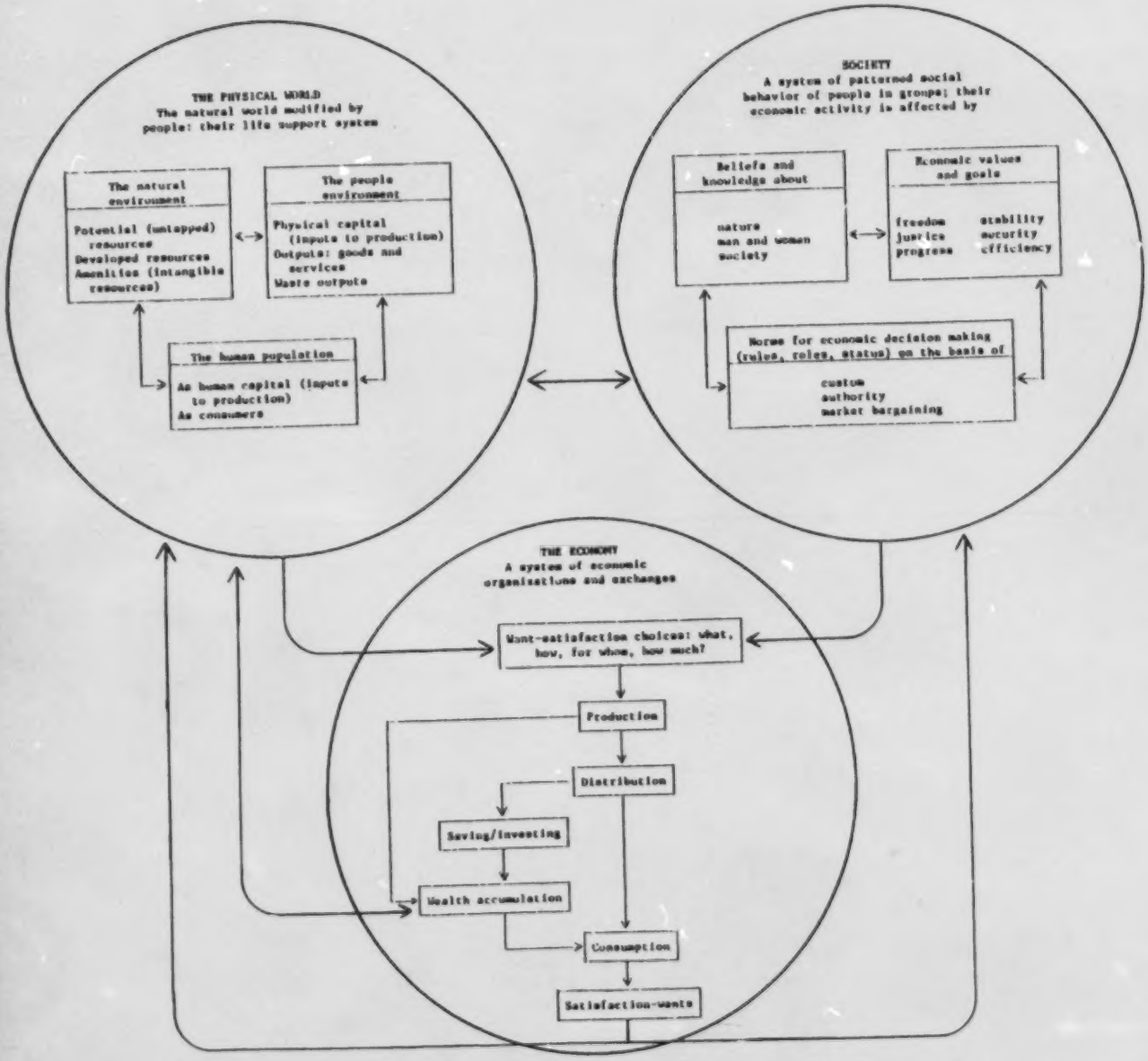
Figure 2

A MODEL OF THE INTERACTIONS BETWEEN
THE PHYSICAL WORLD, SOCIETY, AND THE ECONOMY



In studying economics, one looks at those aspects of social organization involved in managing scarcity. Although economic affairs cannot be separated from political, religious, or cultural activity, certain functions are separated out and identified as "economic" activity for the purpose of analysis. Figure 2 illustrates one way of looking at the interactions between the physical world, the society, and the economy. The circles are the same size because they all represent different ways of looking at the same thing.

Economic activity affects and is affected by the social structure and a culture of a group of people--by society. People's wants are related to the priorities and meaning they attach to six basic economic values: freedom, justice, progress, stability, security, and efficiency. Wants are also related to people's knowledge and beliefs about the relationships between human beings and nature. The norms for decision making are standards of behavior for organizing economic activity and making decisions. They are a unique mixture of custom, authority, and market bargaining, both affecting and affected by economic activity. These values and norms determine the individual's economic roles and functions in society.

The physical world, the natural and human-made environment, provides the resources to satisfy people's wants. It also sets physical limits to people's ability to satisfy their wants.

The economy, which is a system of economic relationships between people and organizations, allocates resources and organizes the activities which transform these resources into want-satisfying goods and services.

Figure 2 is a dynamic systems model. The arrows show that change in any one of the subsystems affects the other two. An economy draws resources from the physical world. Social needs are satisfied partly on the basis of social direction (goals) and norms for decision making. The model shows that the process of economic growth is three-pronged: it involves (1) changes in the resource base, (2) changes in goals, values, and norms for decision making, and (3) changes in the structure and performance of the economy. This model suggests that growth--quantitative

change in productivity--also means development, a qualitative change in the environment, values, institutions, and way of life of a people. Not all social change brings about growth and development. Given world interdependence, growth and development in one economy implies change but not necessarily concomitant growth and development in other economies. Finally, the model introduces the potential for either development or decline in an economy.

Models

Models play an important part in our lives. We are continually confronted with diagrams, maps, tables, graphs, work descriptions, sets of equations--all models. Models are abstractions of reality. What is real is abstracted into a world of mental pictures, symbols, or words.

Three kinds of models are often used to teach economics. First are models of explanation. A model of explanation shows connections or explains or teaches complicated ideas through simplified representations of basic relationships. A second kind of model is one of prediction. Models of prediction are based on observations of the real world. Data are collected, processed, and turned into a predictive model. The more accurate a predictive model, the more valid it is, no matter how unreal the model may seem. A third kind of model is one that describes an ideal. This kind of model represents what we think of as the perfect form of a system or condition. We all dream, and economists are no different.

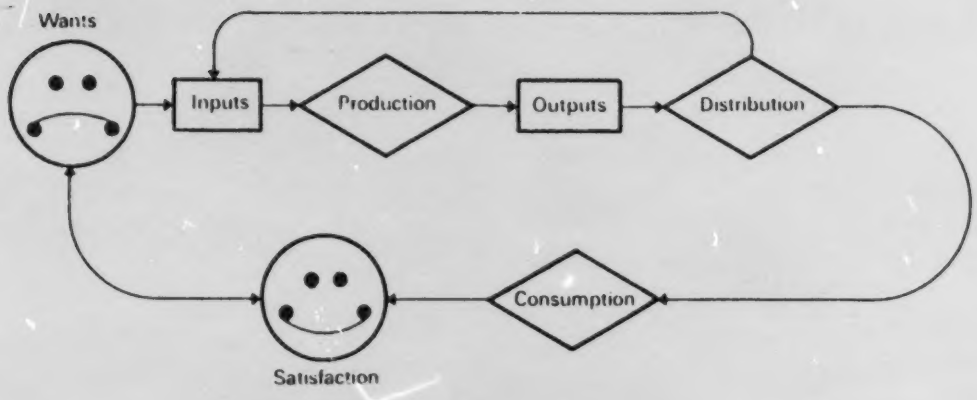
Explanatory Models

The Want-Satisfaction Chain. A useful model of explanation is the want-satisfaction chain (see Figure 3), which explains how wants are satisfied. People satisfy their wants by using resources--land, air, water, minerals, plants, animals, their own talent and labor. Resources in their natural state usually cannot satisfy, or even adequately serve, modern people. They must be processed and often markedly changed before they can be used.

Resources are the inputs of a production process that transforms them into goods and services, or outputs. These outputs--food, clothing,

Figure 3

WANT-SATISFACTION CHAIN



and equipment--satisfy people's wants. Once produced, however, an output may not yet be ready for consumption; it must first be transported from the farm or factory to stores or made available in other ways to the consumer who will finally use it.

Production and distribution in advanced economies involve many operations that require time and resources. Although the actual operations may be quite elaborate, the basic process of obtaining things that people want requires a series of activities known as the want-satisfaction chain, which works in the following way:

--Inputs are the natural and manufactured resources used to produce the things that people want. Inputs are put into a production process. For example, toast eaten at breakfast has undergone a lengthy process before it ends up on the kitchen table. It began as wheat, the basic input in the production process of breadmaking.

--Production is the process of transforming inputs into outputs. Wheat is milled into flour; yeast, water, and other ingredients are

added; the dough is cut into loaves, baked into bread, sliced, and wrapped.

--Outputs are made available to consumers through a series of distribution activities. The distribution process includes transporting and storing outputs as well as making them available at retail stores. Loaves of bread are shipped to the supermarket, where they are stored and sold to buyers.

--People consume, or use, outputs. In this case someone eats toast for breakfast, thereby consuming the bread. Consumption is the process of using goods or services to satisfy human wants. Bread is an output that is literally consumed, or eaten. In this case, hunger is temporarily satisfied. Other outputs, such as automobiles, are "consumed" by wearing them out.

The boxes in the model in Figure 3 represent the resources and products that satisfy wants. The diamonds represent the economic activities in which people engage in order to achieve satisfaction.

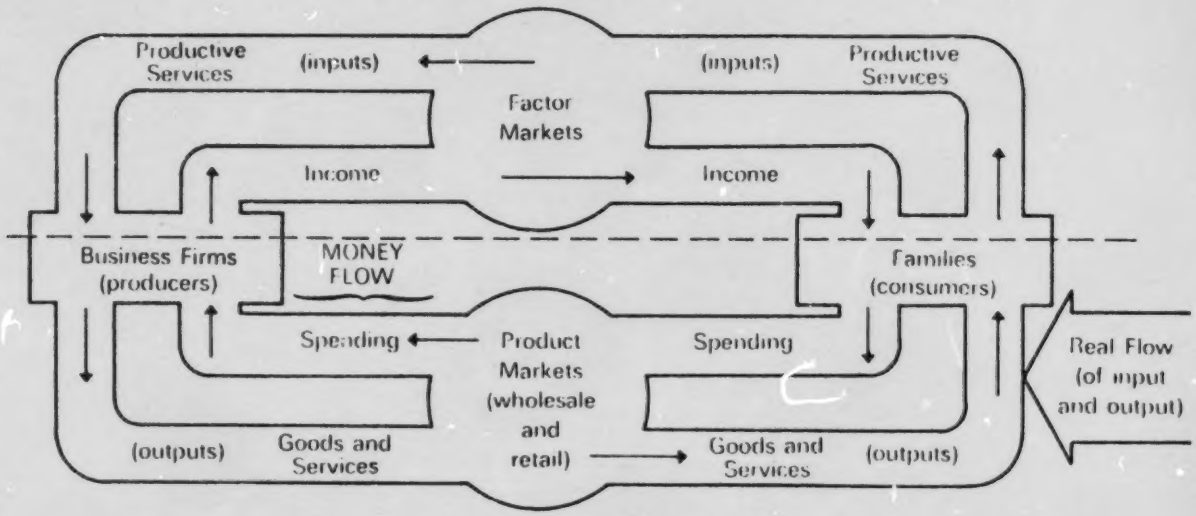
The want-satisfaction model is oversimplified. For example, it suggests that all wants are temporarily satisfied--and we know that this is not true. However, Figure 3 shows one important aspect of economic life: the function of the economy as an input/output system. If society is to continue it must reproduce itself continually--replace labor, machines, and management; sustain the existing work force and technology. In order to grow, however, a society must produce a surplus beyond what is necessary for present consumption in order to ensure reproduction of the system.

The Circular-Flow Model. A more traditional explanatory model is the circular-flow model of a market economy (see Figure 4). This model expands on the want-satisfaction, input/output view to illustrate the flows of money and of real inputs and outputs generated by a market economy and to give a better indication of the systematic nature of economic activity.

It is useful to think of an economy as a system--an orderly arrangement of parts into a whole which performs a given function. An automobile is a system made up of subsystems--for example, the transmission, ignition, and fuel systems. When put together properly, the subsystems collectively provide transportation. A nation's economy

Figure 4

CIRCULAR FLOW OF A MONEY-EXCHANGE ECONOMIC SYSTEM



is a system made up of subsystems: businesses, families, government agencies, labor unions. Through these interrelated organizations and people, a society carries out the basic economic decisions and activities which satisfy the wants of its people. The performance of the subsystems, the nation's economic organizations, affects the performance of the economy. When subsystems change, the whole system changes.

The circular-flow diagram depicts a money-exchange economy as a system. It expands on the want-satisfaction chain to show interrelationships between parts of the economy. The subsystems--families and businesses--are bound together by exchanges of money for goods and services. Families own the inputs used in production, and they consume the output of production in order to continue providing future inputs. Business firms use the inputs to produce what they sell to families.

This simple model shows the following important features of a money-exchange economy:

--Output is produced by specialized businesses, so that money exchange is necessary to satisfy family wants.

--The two major groups of economic organizations--firms and families--are interdependent.

--Income and output, demand and supply, are interdependent; thus, change in demand necessarily means change in supply, and vice versa.

--The economy is a dynamic system, constantly in motion and generating a continual flow of exchanges of money for goods and services and of output produced and consumed. The circular-flow model shows the conditions necessary to maintain a steady state--in other words, to perpetuate the system. Everything produced must continue to be consumed at the same rate over time. Growth can occur only as the result of an injection of new resources--a speedup in the system.

Predictive Models

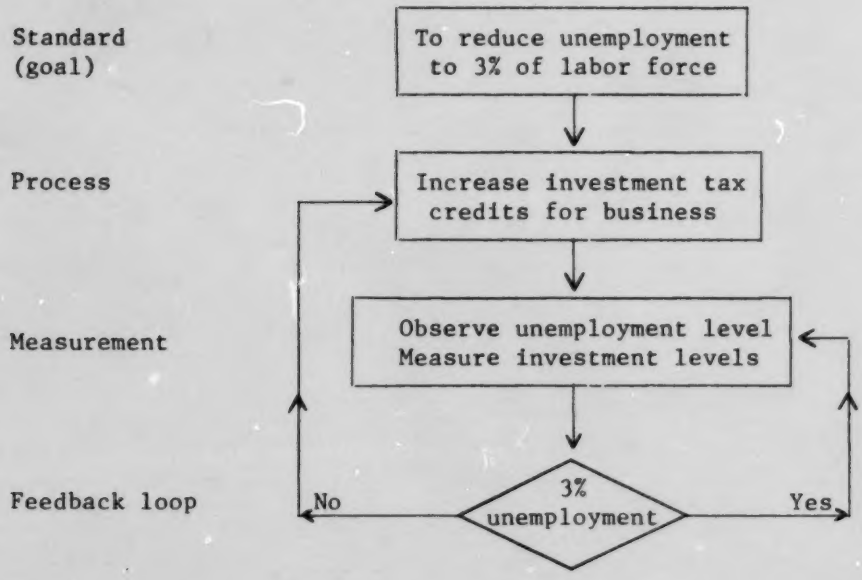
One type of model that secondary-school teachers and students can use to help learn about prediction is called a cybernetic system. The science of cybernetics examines how some systems generate information for use in monitoring system activity to assure that the system maintains a certain standard of performance or attains a desired goal. A cybernetic system is a system that contains built-in self-correction mechanisms. Such a system has four necessary components: (1) a measurable standard of performance or goal to be achieved, (2) a process or operation by which the standard can be reached, (3) a means of measuring whether the standard has been reached, and (4) a feedback loop that provides information so that the process can be adjusted. All four components must by present for the system to be cybernetic. Once we have identified a measurable goal (for example, to reduce unemployment to 3 percent of the labor force), a process by which we can reach the goal (for example, to increase investment tax credits), a means of evaluating performance (for example, measuring unemployment and levels of investment), and a feedback mechanism that corrects for any error in the process, the system is self-correcting and it is possible to predict whether the goal has been reached. Figure 5 illustrates a cybernetic system.

Ideal Models

Ideal models describe idealized or perfect situations. The chemist imagines the perfect vacuum; the physicist assumes a frictionless plane; the economist constructs a model of perfect competition. All these

Figure 5

A CYBERNETIC SYSTEM



models are capable of existing only as mental concepts--that is, they are imaginary. Such models are important, however, because they describe views of perfection. They are useful because simulations of perfect conditions permit scientists to construct mathematical models and then to use those models to make predictions.

A perfectly competitive market model for the economist is akin to the chemist's vacuum or the physicist's frictionless plane. The model is constructed and studied, in lieu of laboratory experiments, in order to learn about market operation abstracted from the imperfections of the real world. In fact, a perfectly competitive market has never existed and is not likely to exist in the real world.

A perfectly competitive market model simplifies (abstracts from) the complexities of real life by making assumptions about market conditions and participants. It describes how markets would work under ideal conditions of perfect competition. There are no exceptions. Everything works as assumed. All decisions are made by model persons--rational economic individuals, each of whom starts out with adequate endowments

of property and personal attributes. These perfect persons have perfect knowledge and always make choices which yield the maximum economic benefits. The model world is made up entirely of such individuals, each of whom acts in his or her own individual best interests.

Furthermore, the markets themselves are perfectly competitive. There are so many buyers and sellers that no single individual or group can influence market price; every buyer and seller is a "price taker." All sellers offer an identical product. Buyers and sellers can move in and out of the market freely; there is no obstacle to starting up or ending a business. Given these initial assumptions, the model can be analyzed in order to predict behavior--prices and amounts bought and sold. More important, one can predict long-run performance--the effects of perfect competition on resource allocation and want satisfaction. The model proves that (1) market competition eliminates all but normal profit (just enough profit to keep firms interested in producing) and forces producers to choose the lowest-cost method of production; (2) firms respond to changing demand conditions, moving into more-profitable markets out of less-profitable ones in pursuit of profits, so that resource use adjusts automatically to changing demand; (3) the only ways to realize extraordinary profits are through innovation and cost cutting; thus, there is continual competitive pressure to innovate; (4) workers earn what they contribute to production on the basis of their individual choices about how much they want to work and how much education they are willing to obtain. In short, in this ideal environment, perfect competition between small producers creates a just society, efficiently solves the problem of want satisfaction, and continually recreates the competitive environment that induces businesses to innovate and cut costs.

Ideal models have an important scientific use. Traditionally, they have been used in economics to justify laissez-faire or "free-market" economic policy--minimum government interference in business decision making.

Ideal models are important scientific tools in economics, where experiments are not possible. One can use them to explore why real markets do not work so efficiently and perfectly, to better understand imperfect competition (real-world competition) and the effects on market operation of market power. Comparing the ideal (perfect) and actual

market supply-and-demand conditions in a given industry enables researchers to identify the causes of poor market performance. On the basis of that knowledge, they can suggest public-policy alternatives for changing market structure and thereby promoting more efficiency or equity.

This view of markets implies that in reality they don't always operate efficiently and that public intervention is necessary to reduce the market power of some sellers or buyers or to promote the public welfare. Perfect competition is seen as an ideal which is rarely achieved, though much sought after. In the real world, imperfect competition related to concentration of power inhibits the proper operation of markets, encouraging further increases in market power and thereby justifying government interference to promote competition, to control monopoly power, or to prohibit monopoly practices.

As noted earlier, there is another traditional use for the perfectly competitive model. In this view, the theory of perfect competition is considered a reasonably realistic description of how a market economy actually works. The theory, in this view, demonstrates the "magic" of the market--the "miracle" of impersonal market forces that operate to create freedom and efficiency in the absence of centralized coercion. To free-marketeers, the theory "proves" that market forces will create a wonderful world of goods for all the deserving. This model is used to justify and promote a "free-market economy"--free from meddling by government and powerful labor unions. In this context, free (perfect) competition and free markets or free enterprise are phrases that are sometimes used interchangeably in the sense that the results of perfect competition--efficiency, growth, and freedom--are thought to be the result of a free-market economy. (Note the absence of economic security and economic justice from this list of performance characteristics.)

It is important for teachers to be attuned to such rhetoric. Advocates of free markets want to eliminate government intervention in the affairs of business, and they use the model of perfect competition as justification. However, they seldom actually advocate perfect competition--a world of small businesses, each with zero market power. In fact, free-market advocates often represent big business, and they contend that bigness itself is not evil. They claim that powerful, meddling government is the source of our economic problems, along with

powerful unions. They contend that there is enough competition in the world at large so that the model of perfect competition does describe economic reality, even though the world economy has become increasingly dominated by powerful corporations. Such corporations must be big enough to compete in the world markets, yet they use an economic model which depends on the assumption of competition between small, powerless buyers and sellers to justify hands-off government policy towards business. Ironically, such policies have the effect of benefiting big business at the expense of small business during periods of economic instability, for it is those with market power and adequate financial resources who are most able to compete successfully and grow in the real world.

Methods of Analysis, Evaluation, and Synthesis

We have now discussed two kinds of organizers--discipline structures and models that can be used to explain, predict, and describe the ideal. Methods of analysis constitute a third group of organizers in teaching economics. These methods are simply ways of approaching a problem. Students who learn to use various methods of analysis can become more effective problem solvers. In the remainder of this section, each method is briefly discussed. Section 3 describes several generic teaching strategies which can help students learn to use these methods and which create a positive classroom climate for learning economics.

Model Building and Systems Analysis

Students should be encouraged to think of economic organizations and the economy as a whole as systems--orderly arrangements of parts into wholes designed to perform certain functions. The various components of the economy--businesses, families, government agencies, etc.--are themselves subsystems of the larger system. Students should have the opportunity to construct models of the subsystems (microeconomic models) or of the total system (macroeconomic models) as means of studying the relationships between the structure of the system and its performance--that is, its effectiveness in carrying out its function. This process is called systems analysis. Students should be encouraged

to elaborate on the diagrams presented earlier in this section in order to create more "realistic" models.

Cybernetics

Cybernetics, a related and powerful systems concept, is also used to study an economy and its subsystems. As noted earlier, a cybernetic system has a self-regulating feedback mechanism which measures performance against a given standard. Students can first construct cybernetic models of simple systems and then proceed to more-complicated systems ranging from the adjustment process of a market or economy to changes in demand and supply conditions. In studying the actual operation and performance of an economy, students should look for evidence of effective forms of automatic internal correction designed to achieve socially beneficial ends. After doing so, they will be better able to deal with policy controversies in which the issue is the extent to which a given policy guarantees that a system will operate in the public interest.

Analysis of Controversies

Decisions about personal and public conflicts require students to evaluate polemics and to make value judgments. Consequently, they must learn how to extend rational thinking to this area of decision making. Using a model of conflict analysis helps students learn to clarify the nature of a controversy by identifying the points of dispute. These points can be classified according to four categories: (1) fact, (2) definition, (3) interpretation (prediction), and (4) values. Students can then apply what they know about economic analysis to reach agreement on those aspects of the controversy which are amenable to scientific or logical analysis. This process paves the way for a final discussion of the value issues involved and eventually leads to a decision. (See pp. 63-66 for description of a teaching strategy for values.)

Decision Making

Making economic decisions requires making choices about the use of scarce resources. Basic to economic decision making is the recognition that one cannot have everything one wants and that there are alternative uses for the resources at one's disposal. The objective is to make an optimal choice--to choose that alternative use of resources which gives the greatest payoff.

Comparing the different uses of scarce resources in order to choose the alternative with the highest payoff is basic to wise decision making. This process involves three steps: (1) identifying all practical alternatives or opportunities, (2) comparing the costs and benefits of each alternative--by making dollar estimates of both costs and benefits, where possible, and (3) considering both long-run and short-run costs and benefits of each alternative. The final step is to choose the alternative (opportunity) with the highest payoff. This is accomplished by shifting around the uses of resources until it can be shown that, given existing conditions, it is impossible to increase one's payoff by choosing any other alternative. In economics textbooks this process is often described in terms of calculating opportunity costs.

The final step indicates that this decision-making procedure invariably requires one to calculate trade-offs of costs and benefits at the margin. As long as the marginal benefit is greater than the marginal cost, it is economic to choose in favor of the expenditure of resources; when benefits are less than costs, it is economic to reject the expenditure.

Exactly the same decision-making processes are involved in public policy decisions. These may involve obvious economic allocation decisions (whether to raise the tax rate or how to spend expected tax revenues) or less-obvious economic choices (changes in the public regulation of business or public intervention to protect the rights of minorities). All these cases require the consideration of alternative uses for scarce resources and the marginal costs and benefits for each alternative. Public decisions made by citizens are the most complex because public projects often impose costs on some groups and benefits on others.

Comparing Economic Systems

Studying an economy involves analyzing its economic organizations, its economic goals, how and for whom the major economic decisions are made, and how the economy changes over time. Such a study also involves evaluation--assessing how well the economy functions to achieve the society's economic goals and how it adapts and develops over time in response to human wants. One way of understanding how an economic

system works is to compare it with another system. Such comparisons can often be made by building a descriptive model of each system (or some part of each system) and then comparing the models. Generally, this process makes the similarities and differences immediately apparent.

Figure 2 (on page 6) offers a useful model for describing and comparing economies. The categories in the "Economy" circle describe the basic parts of the economic organization of a society: the kinds of specialization, exchange, and economic organization; the kinds and amount of investment; the amount of wealth; the changes in inputs; and the ways the output is distributed. These data describe the structure and performance of the economy.

The "Physical World" and "Society" circles suggest some factors that explain the particular structure and performance of the economy. The physical world sets limits on economic growth and on the potential types of specialized production. The values, beliefs, and norms for decision making help determine the unique forms of economic organization and the goals of the society.

Using this model to compare economic systems involves identifying similarities and differences in economic organization and performance. Students use economic values--freedom, growth, security, stability, justice, and efficiency--as criteria to evaluate the economies. Which economy is more fully developed? Which society is richer? Which society most-equitably distributes its output? In which society are the people more economically secure?

2. APPROACHES AND RATIONALES FOR TEACHING ECONOMICS

Most of us go through life without asking difficult "why" questions. On a personal level, we don't ask why we take a shower in the morning or why we take out the garbage. These activities may not seem very important except to foster personal cleanliness. In terms of curriculum, we often don't ask why children study families in the first grade, communities in the third, or U.S. history in the eighth. If we did ask ourselves "why" we teach what we do, we might be hard pressed to answer convincingly. We probably have not considered our rationale--the underlying justification for choosing what and how we teach.

The Nature of a Rationale

A curriculum rationale states and justifies the basic educational goals that underlie the educational program. The justifications are based on a philosophic position--the fundamental values and beliefs embodied in one's philosophy of education. The rationale relates a philosophy of education to the goals of the specific course of study under consideration. Why teach economics? What purpose does the course serve for students, the community, and the society at large? Why is it necessary to teach economics, to take space for this subject in an already crowded curriculum?

At this time in U.S. society, it is particularly important to think through a rationale for teaching economics. Schools are under increasing pressure from different groups to "educate" students about the particular economic matters that these groups think are important. At the same time, we have been experiencing a decade of troubling economic performance in our society. Unemployment and inflation, increasing inequality of income, stagnant investment, world competition--all these problems are plaguing the U.S. economy. In addition, we are increasingly concerned about world economic instability, while at home the various attempts to provide convincing explanations of our economic problems and to find policy solutions to them have created considerable turmoil in the economics discipline. Some say that we are witnessing the breakdown

of the mainstream paradigm, the accepted scientific approach. Certainly, economists to both left and right of Paul Samuelson are moving from criticism to alternative approaches. We may be witnessing what Thomas Kuhn calls a scientific revolution--rejection of the usual way of viewing the economy and studying it scientifically, and experimentation with alternatives. James Tobin, the 1981 Nobel laureate in economics, has pointed to the emergence of "Reaganomics," a conservative counterrevolution against the Keynesian revolution that changed the complexion of liberal politics 40 years ago.

Many school districts have established rationales for social studies and perhaps specified approaches to teaching economics. Even so, most teachers have some degree of freedom of action. Certainly it is important for teachers to be aware of their personal reactions to such a rationale--the extent to which they can go along with it, where they disagree, and how they can adapt themselves or the curriculum so as to resolve areas of disagreement. If there are no restrictions on teachers' options in selecting texts or other teaching materials, they need to carefully assess whether the resources they plan to use are congruent with their personal preferences and instructional goals.

Five Approaches to Teaching Economics

There are a variety of approaches to teaching precollege economics. In our analysis of the field, five stand out as predominant: (1) the economics of free enterprise, (2) personal or consumer economics, (3) global education, (4) economics for citizen education, and (5) economics for the sake of learning the discipline. Each has its particular rationale based on a particular philosophical view of humanity and society. On the following pages, we present a brief rationale for each approach, distilled from a variety of statements taken from curriculum materials designed around the given approach. Although these rationale statements are of necessity somewhat oversimplified, they should be useful in helping teachers think through their own rationales for teaching economics and choose curriculum materials.

A Rationale for Free-Enterprise Education

The founding fathers of the United States were truly visionaries. They sought to create a new country where individual freedoms were cherished, respected, and upheld; where there was a separation of church and state; and where there was very limited government intervention in the economic lives of citizens. The founding fathers created a legacy that needs to be understood and believed by 20th-century Americans.

We have a democratic form of government and a free-enterprise economic system. The combination of free enterprise and democracy has enabled our country to become one of the economic leaders of the world. Moreover, our citizens realize one of the highest standards of living of any group of people in the world. Educators, business leaders, and legislators are in agreement that good citizenship education requires an understanding and appreciation of our political and economic systems.

From time to time there have been threats that communism would bury us. More serious is the continuing threat of creeping socialism, or "welfarism," and increasing government intervention. Our democratic form of government and our free economy have thus far withstood attacks from both outside and inside. If we are to safeguard our freedoms, it is imperative that we, as citizens, understand our political and economic heritage in order to carry out our responsibilities in preserving the freedoms guaranteed by our Constitution.

Free enterprise is an integral part of the fabric of American civilization. It is rooted in American experience. Its basic foundations are grounded in the common soil of the American way of life--personal integrity, private initiative, and public responsibility.

Students need to strengthen their understanding of the free-enterprise system. Since they will be participants, both active and passive, in the American political and economic systems, it is essential that they have knowledge, skills, and attitudes which will enable them to contribute to the continuing development and maintenance of the American free-enterprise system.

A Rationale for Consumer or Personal Economics

The basic institutional organization of the production, distribution, and consumption of goods and services in the United States is

through the market system. Markets differ in the extent to which competition of monopoly prevails and in the degree of information, mobility, and freedom which individuals have in the marketplace. Depending on the political forces at work, markets are sometimes modified by regulation. In addition, local, state, and federal laws have been enacted to provide protection for and information to consumers and to protect workers and the public from such social costs of market operation as pollution and environmental damage.

In a market system the consumer is the basic decision maker, determining what firms survive and thrive through decisions to spend or not to spend income. Taken as a whole, the more than 60 million consumer units (individuals and families) in the United States constitute a potentially powerful force in determining what is produced in a market-oriented economy.

Economic life can and should be analyzed from the perspective of the individual. High school students, especially, need to consider personal or consumer economics, particularly since they are likely to be personally interested in the subject. Many earn and spend their own money. Thus, they are likely to be interested in many of the topics treated in a consumer or personal economics course. They need to know how to make intelligent consumer decisions as adults.

On a broader, more-encompassing level, everyone needs to be concerned about personal economic issues. As consumers, we all make decisions about what to buy, how much to buy, whether to borrow, whether to save, whether to invest. As participants in our economic system, we all need to make hundreds of personal economic decisions throughout our lifetimes.

A Rationale for Economics From a Global Perspective

Television, travel, and newspaper headlines provide millions of Americans with a constant flow of information that 30 years ago would have been unimaginable. Subarus, Toyotas, Sonys, Ataris, bauxite, bananas, coffee--these and other products and resources remind us that, even at the local level, we are closely linked with the rest of the world. Jet airplane routes, oil pipelines, giant ships, instantaneous global communication--such networks have all but eliminated any possibil-

ity for isolation from the rest of the world. The death of a leader in the Middle East becomes grave cause for concern--not only about peace, but also about the worldwide flow of oil resources.

Interdependence and rapid change are now facts of life. The emerging complex global society will require a high level of competence if we are to deal with changing situations. In terms of economics, we must develop an increasing awareness that the U.S. economy is part of the world economy. We need to recognize that competitive forces operate on an international basis, that resources, especially nonrenewable resources, are distributed throughout the world, and that economic policy decisions (for example, the decrease in the money supply) in one country will have a serious impact on other countries. Students of today will need to develop a pluralistic outlook, competence in dealing with diversity, and the ability to analyze economic events from a global perspective.

In American society we have thought it noble to respect diversity. Unfortunately, American schools have not always been guided by this belief. Much attention has been focused on the "American way." Given a global society, the teaching of a single set of values can be imprisoning. Diversity, adaptation, understanding, coping, compromise, peacemaking--these will be important characteristics for students in a global age.

Studying economics from a global perspective demands a reconsideration of the concept of community. Students need to have an awareness of a global human community, with its diverse resources, ways of doing things, and ways of exchanging. Students need to recognize that they are all members of a human community. They need to be aware of the traditions, heroes, and critical events in human history and to develop ethical concerns for all others. Students must recognize there are other "ways of knowing" and that they need to recognize what and how others know what they believe to be true.

A Rationale for Economics as Citizen Education

A basic concern of citizenship education is the training of students in the knowledge, skills, and attitudes prerequisite for active and effective participation in civic life in a democratic society. Mature, competent citizens can both advocate and carry out appropriate political actions for the common good. Society is becoming increasingly complex.

This complexity means that citizens face increasingly complex responsibilities. One vital aspect of citizenship education is economic education.

Good citizens should be able to think clearly about economic questions. This ability requires some minimum economic literacy--knowledge about how our economy works and how well it performs. A knowledge of economics is important if we are to meet our responsibilities as participants in the complex system of enterprise. All persons have to make decisions on a wide variety of economic problems of local, state, national, and international significance and then express their views in the voting booth or participate directly in political life. These problems range from school bond issues to foreign economic policy. Some knowledge of economics is essential if such decisions are to be made intelligently.

The study of economics involves learning economic reasoning--the replacement of emotional, unreasoned judgment with objective, rational analysis. It also involves critical thinking in evaluating controversial issues. Economics is concerned with all of society and with the activities of the various groups and institutions it subsumes--consumers, business persons, and workers of different ethnic and racial groups. Economics is concerned with individual markets for products as well as with the aggregate of all markets--that is, the economy as a whole. Economics is concerned with the overall functioning of the economy, how fast it is growing, and how vulnerable it is to inflation or depression.

Economic understanding does not mean simply memorizing facts. It is a certain way of thinking about problems which usually involves making rational choices. This is not to say that students should not make value judgments; all of us do. However, students need to be able to use the powerful tools of theory and analysis, in the service of societal goals, in order to be prepared for active participation as citizens.

A Rationale for Economics as a Discipline

Economics is one of the oldest of the social science disciplines. As a matter of fact, economics has often been called the "queen" of the social sciences. As such, economics has a well-defined structure and established methods of analysis. It is vital that students learn this

structure and the accompanying analytical methods.

It should be recognized that economic topics can be taught in various subject areas in the curriculum, especially in history, geography, and civics. The overall purpose of social studies programs is to develop desirable sociocivic behavior in students. What is missing in most such curricula is rigorous training in scholarship. There are few opportunities at the precollege level for students to experience the rigor needed for further academic pursuits. Watering down the discipline of economics so that it can be taught in social studies classes misses an important goal--that of developing in students the ability to think in abstractions and to experience the joy of learning.

The discipline of economics includes some very powerful ideas that must be learned in a rigorous way. Among these are demand-and-supply analysis, the law of diminishing marginal returns, aggregate demand-and-supply analysis, cost analysis, comparative advantage, and general equilibrium analysis. Overarching the study of economics is marginal analysis--the study of rates of change. Through studying these and other powerful ideas and methods of analysis, students will deduce principles that are useful for offering explanations of real-world events or for making predictions of economic behavior.

Combined Rationales

It is possible to combine two or more of these five rationales in designing an economics course or choosing curriculum materials. A free-enterprise rationale might logically be combined with a personal or consumer economics rationale, although it would be inconsistent to integrate a free-enterprise rationale with any of the others. Personal economics is often combined with a citizenship rationale. Similarly, a global education or discipline-centered rationale fits with a citizenship-education rationale, although a personal economics rationale could not easily be combined with a discipline-centered rationale. One of the major problems in choosing materials is that promotional literature tends to describe materials in glowing terms which reflect a variety of rationale positions. We suggest that teachers be wary of materials that offer, or purport to offer, all things to all students. The following questions are useful in assessing the basic approach of an economics text:

--How does the author view the economy, how it operates, how well it operates? What problems are identified, and what solutions are implied?

--What is the perceived role of the individual in society? What are the roles of individuals in regard to the economy?

--What is the author's view of knowledge and how it is acquired? How is knowledge generated, and what is the importance of knowledge in bringing about change?

--What is the author's view of social and economic change--the degree of stability versus change in the social system? What causes change? Is change presented as good or bad? Can people solve social problems over time?

--Why should students study economics? Why is it important?

--What economics should be studied?

Economics: Ferment in the Discipline

The discipline of economics is currently undergoing serious self-examination. Not since John Maynard Keynes wrote The General Theory of Employment, Interest, and Money in 1936 has there been such a serious reconsideration of economic theory and policy. In this section we discuss four different theoretical approaches to economics. Our purpose is to help teachers understand the nature of the controversy and to provide information that may enable them to make better economics curriculum decisions.

The current disagreements are mainly over that aspect of the discipline which is most directly related to public policy: macroeconomics, the theory of the operation of the economy as a whole. This theory explains the causes of economic growth, inflation, unemployment, and business cycles, and it is used to predict changes in overall economic conditions. Government officials then derive appropriate policies designed to promote general growth and prosperity so that businesses can predict the future of their own activities and make long-range investment and production plans with some degree of confidence. The main purpose of theory and research is the formation of policies that make the economy work better. Because economics is mainly a policy science, the validity of its macro theory is based mainly on the success of its eco-

nomic policies; if they don't work, the theory comes under question.*

The "Keynesian" economic policies developed during the New Deal led to the establishment of a network of highly successful social programs. The management of aggregate demand through the use of monetary and fiscal policies promoted economic growth and stability and, in the private sector, a kind of accord between labor unions and management which resulted in industrial peace and rising real wages. By the 1970s, when the postwar boom had subsided, Keynesian policies were proving to be less and less successful in promoting growth and stability. The U.S. economy was becoming more vulnerable to world competition; changes in business conditions in one country quickly spread to other economies; the world economy became more susceptible to shocks, as evidenced by the dramatic rise in oil prices in 1974. Economic policy has had to cope with a new phenomenon: "stagflation"--sluggish growth and unemployment accompanied by rising prices. During the last decade the major concern of public policymakers has moved from maintaining full employment to containing inflation, even at the cost of high rates of unemployment.

The failure of "Keynesian" economics stimulated challenges to the mainstream theoretical foundations from both the right and the left. Conservative critics of liberal social welfare programs and government intervention in economic affairs reflected the general disaffection of the U.S. public. Supply-side economics--a new version of the old orthodox theory which had been the vogue before the New Deal--increasingly gained respectability in the economic profession and became the theoretical basis for the conservative policies of the Reagan administration.

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*The other part of economics, microeconomics, describes and predicts the results of competition in particular markets. This theory is based on marginal analysis, or the theory of choice, which has useful applications as a decision-making tool in figuring out how to make optimal choices. Microeconomics, and particularly the trade-off decision-making skills derived from marginal analysis, are very important in promoting capitalist values and goals, the socialization functions of economics education. This theory describes how the market system works under ideal conditions and how individuals can best work the system for private gain. It is useful in training students to accept the materialist incentives/rewards for success and to make the most of any given situation. More generally, microeconomics also is a policymaking tool for rational decision making in the public arena. Given the need to make choices in a scarcity environment, marginal, or trade-off, analysis helps the decision maker arrive at a more-rational choice.

"Keynesian" policies have also been challenged from the left. Some liberals--institutionalists and post-Keynesians--reject the mainstream analysis of both microeconomics and macroeconomics on the basis that they are unrealistic, inadequate representations of the modern industrial market economies. These economists call for a fundamental redirecting of priorities and for more government planning. Further to the left--so far out in left field that their position probably is irrelevant to most public school curricula--Marxist economists, who have gained in both numbers and stature, are actively critiquing Marxist dogma and developing a highly informative theory of monopoly capitalism.

These differences in perspective, and therefore in policy prescription, reflect different views of the nature of our economic system and of approaches to scientific work in economics. Thomas Kuhn, in The Structure of Scientific Revolutions, refers to these different approaches to scientific work in a given field as competing paradigms. In economics, these different paradigms have coexisted for a long time. At the end of the 19th century the neoclassical paradigm, emphasizing microeconomics and based on marginal analysis, displaced the classical economics of Adam Smith and David Ricardo, which had sought to explain income distribution between different economic classes and the source of growth in the early stages of capitalism. By the end of the 19th century capitalism was in full bloom, and neoclassical analysis emphasized the efficiency of business decision making and the decentralized coordination provided by market operation. This theory celebrated the advantages of the market economy and implicitly presumed that we had reached or were about to reach the ultimate form of economic organization. Mainly because of the inability of the neoclassical paradigm to explain and cope with the Great Depression of the 1930s, its laissez-faire political philosophy gave way to the Keynesian revolution and what became, under the leadership of Paul Samuelson, the neoclassical/Keynesian synthesis. Today these policies are found wanting, giving rise to a search for a different and more-comprehensive way to view the economy.

Kuhn describes scientific progress over time in terms of periods of normal science, followed by scientific revolution. The most common condition is normal science, during which a particular paradigm rules the discipline. Textbooks are written to introduce students to the discipline,

and young scientists learn how to do good science in traditional ways. Gradually, empirical data build up which cannot be explained by the theory. As these anomalies become more and more troublesome, some scientists begin to look for a new theoretical base that can explain them. In economics we seem to be experiencing just such a time; thus, it is important to know the alternatives as well as to accept the reality of the current state of economics--that controversy exists, and that disagreement over viewpoints will undoubtedly lead to a more-complete, but still incomplete, understanding of how the economy works. This is the way scientific progress occurs.

Each of the four different paradigms outlined below seeks to explain the operation of the U.S. economic system--called "free market" by the supply-siders, "mixed economy" by the Keynesian/neoclassicals, "industrial economy" by the institutionalists, and "capitalism" by the Marxists. Each term is based on a particular set of beliefs and assumptions and ways of thinking about economics. Each implies a political orientation and formulates a set of public policies designed to improve the functioning of the economy.

The Neoclassical Paradigm

This paradigm provides the theoretical justification for the free-market or free-enterprise economy and therefore for a public policy of minimal government interference in the economy.

In the neoclassical paradigm, economics is the study of the allocation of scarce resources (or means) among competing human wants (or ends). Economics studies decision making in a market economy. The approach taken is basically microecomomic. The theory is built up from the decision making of the rational economic actor--whether buyer, seller, worker, employer, or government bureaucrat. Market demand and supply curves are derived from combining the demand and supply curves of individual buyers and sellers.

The neoclassical theory holds that the competitive process yields optimal end results in terms of satisfying human wants--a competitive market structure that ensures optimal allocation of scarce resources in order to satisfy demand. Furthermore, any change in consumer tastes triggers a competitive process that reallocates resources so as to meet

changes in demand.

This theory is based on a subjective theory of value, in that demand in each market is based on buyers' tastes. The economy flexibly adapts to the subjective tastes of individual buyers. Value or relative prices are determined by demand, by consumer tastes.

The core of this position is the theory of perfect competition, and the model of the economy as a whole is Walras's general-equilibrium model of an economy made up entirely of perfectly competitive markets. A perfectly competitive market has the following characteristics: (1) a large enough number of buyers and sellers so that no one person or group can in any way control the price, (2) perfectly free entry to any market, (3) standard products in each market, (4) perfect knowledge and certainty about the future, (5) continuous demand and supply curves, implying that buyers and sellers substitute cheaper for dearer goods or inputs to production whenever prices change.

In a world made up entirely of perfectly competitive markets, Walras proved, there is general equilibrium: supply equals demand in every market. Furthermore, general equilibrium will be reestablished if there is any disequilibrating force. That is, if changes in tastes result in changes in demand, relative prices change and a new equilibrium will be established with a new set of prices.

According to this theory, in the short run prices act as weathervanes, changing whenever demand or supply conditions change. Individual buyers and sellers change their choices whenever relative prices change. If the price of butter drops relative to the price of margarine, more butter will be bought and the demand for margarine will drop; at that point the price of margarine will also drop.

This is a demand-centered theory: prices change because demand changes. When prices rise, consumers substitute cheaper alternatives. Even more important, when the wages of labor increase, businesses substitute capital equipment for labor. Even in the short run, the theory assumes, businesses can increase or decrease the amount of labor used with a given amount of fixed equipment (the law of diminishing returns) depending on the level of wages. This assumption ignores the possibility that technical requirements may mean that a fixed proportion of labor must be used with a given installation.

The neoclassical theory also takes for granted the flexibility of relative prices. Under conditions of perfect competition, prices are determined by the market. Each buyer and seller makes decisions about prices--which are determined, as in an auction, by the impersonal operation of market demand and supply.

This theory depicts the economy as a circular flow of firms and families, connected and coordinated through market forces of supply and demand. Given the assumptions of the model, market forces act in a consistent and coherent way, with economic actors responding rationally to changing price signals. This system depends on the principle of substitutability and therefore on the response of individuals to relative price changes. In turn, relative prices indicate relative scarcities.

The neoclassical paradigm proves not only that resources are allocated to reflect changes in consumer demand but also that, because businesses are forced by competition to minimize costs, they are induced to innovate in an effort to make above-average profits. Finally, earnings are based on the productive contributions of the owners of factor inputs--land, labor, capital, money.

If government is introduced into the model, its actions--for example, collecting taxes in order to provide services or buy goods--are substitutes for private buying and selling. Because only individuals know their own tastes, government economic activity of this sort distorts demand and supply, artificially influencing prices and therefore the allocation of resources to satisfy human wants.

Advocates of this position recognize that the real economy is not competitive in the way assumed by the model; indeed, many neoclassical economists have developed models of imperfect competition and monopoly. However, they believe that failures of market allocation which are due to imperfect competition cannot possibly be as bad as those caused by government intervention. This is logically true if one applies the "rational economic person" analysis to government. If government decision makers also act to maximize their own personal satisfaction, then it is impossible to expect them to act in the public welfare--even if we could define such an abstract concept, which is impossible because happiness comes from individual satisfaction, not group satisfaction.

In the neoclassical model, not only is there an automatic tendency for markets to clear, there is also an automatic tendency for the economy to operate at full employment, for supply to create its own demand. If some disturbance should bring about unemployment and a business crisis, the economy automatically tends to move back to full employment. Reduced demand for goods would mean reduced demand for workers, eventually driving down wages and reestablishing full employment. In the absence of union wage contracts, flexibility in wages would ensure an automatic return to full employment.

In the real world of today, involuntary unemployment is due mainly to the inflexible wages caused by collective bargaining. Inflation is due to increases in the money supply caused by government deficit spending, financed by the printing of money. According to the neoclassicists, the solution to our current problems is clear: control the money supply through Federal Reserve policy or by reinstituting the gold standard. This requires balancing the federal budget through cutting back domestic spending programs, most of which are counterproductive anyway because they provide a safety net for the poor, thereby increasing their dependency on the government. By reducing dependence on social services and income-maintenance programs, reducing government support for collective bargaining, and pursuing a tight money policy in order to increase unemployment, the supply of labor will be increased and unions will be weakened, thereby promoting wage flexibility. These policies will also have a positive long-run effect on business expectations and on saving and thus on investment spending, thereby promoting economic growth. The emphasis is on reducing costs and promoting increased supply--which will be bought at some price.

The Neoclassical/Keynesian Synthesis

This paradigm shares many basic principles and methods with the neoclassical tradition. It is the economics of college textbooks, epitomized by Paul Samuelson's classic text. This position represents a synthesis of Keynes's macroeconomics and the earlier neoclassical microeconomics. According to his contemporary followers, it reflects a serious misinterpretation of Keynes--so much so that Keynes's followers, post-Keynesians, refer to "Keynesians" in quotation marks.

Keynes rejected the notion that the economy has an automatic tendency to return to full employment, introducing the possibility of a less-than-full-employment equilibrium. He believed that stagnation and depression can persist unless aggregate demand is managed by the government, because in a money economy there is no reason to assume that aggregate demand will be sufficient to promote full employment. While aggregate consumption spending is a stable function of total income, aggregate investment spending is highly volatile, depending to a great extent on expectations about the future. Increasing the money supply under conditions of serious unemployment may not work if people choose to hoard money instead of spending it. Full employment will not be restored through declines in wages because of workers' resistance to the erosion of their fair share. Thus, the notion that market forces will automatically restore full employment is true, if at all, only in some unspecified long term, and Keynes pointed out that in the long run we are all dead.

Keynes's macroeconomic theory was grafted onto the basic neoclassical framework by Samuelson and others, forming the new synthesis and mainstream paradigm of the postwar period. In this synthesis, the microeconomic model of the earlier paradigm is retained. Mainstream "Keynesian" economists still build theories based on rational decision making by individual economic actors. The general-equilibrium model is still the theoretical cornerstone. However, "Keynesians" are more willing to admit the real-world existence of bottlenecks, structural faults in markets, and the importance of outside shocks to the economy--all explanations of why the real world does not operate like the model. Government intervention becomes necessary to improve market operation. Nevertheless, advocates of this paradigm still assume individual rational decision making in response to price changes; they still assume that markets clear, that prices change in conformity with changes in demand and supply, and that individuals respond rationally to such price changes. Therefore, they still rely on the consistency and effectiveness of markets, and they advocate policies that induce individuals to respond to market forces.

Business cycles are explained by random shocks in combination with multiplier/accelerator effects. Modern market economies have an inflationary bias because of wage rigidity, which is explained as the result

not only of collective bargaining but also of the labor policies of large employers, who are loath to reduce the wages and salaries of loyal workers and key personnel. These "Keynesians" advocate a policy of managing aggregate demand in order to speed up the economy's return to full employment. They advocate fiscal policy that stimulates or dampens aggregate demand and monetary policy that controls interest rates. Because of rigid wages, government intervention is necessary in order to offset declines in autonomous spending and restore full employment. However, policies that stimulate aggregate demand also increase the demand for labor, increasing the wage rate and thereby increasing prices. The result is a trade-off between the level of tolerable unemployment and that of tolerable inflation. Policymakers must choose between the two goals.

"Keynesians" agree with their more-conservative colleagues on the importance of market incentives and the negative effects of social programs and high taxes on individual and corporate initiative. They recognize the need for policies that will stimulate long-run growth, and they favor the use of tax credits and other such incentives designed to promote saving and investment. They, too, place great emphasis on the role of expectations in economic decisions. There is considerable agreement between the straight neoclassical and the "Keynesian" paradigms--enough so that some critics from the left consider the two approaches to be quite similar.

The Institutionalist/Post-Keynesian Paradigm

In the United States, institutionalist economists like Thorstein Veblen were critical of marginal analysis from the very beginning because of its unrealistic assumptions. Such modern popularizers as John Kenneth Galbraith have sought to describe the modern industrial market economy as it is. Galbraith invented the notion of countervailing power between large corporations and labor unions. He has described the motivations and pricing and investment behavior of the large corporations which dominate the U.S. economy, which he calls the "planned economy" because of the need for big corporations to do their own planning. In England, colleagues and followers of Keynes--critical of the Samuelson synthesis with neoclassical economics--have gone back to the classical

economics tradition of the 19th century to develop post-Keynesian economics. These two groups of economists have arrived at similar positions and are developing a competing paradigm.

These economists discard the theories of individual decision making, marginal analysis, and the general equilibrium which are the bases of the neoclassical paradigm. They replace it with a completely different framework, one based on (1) a view of the economy as a system of reproduction and growth through investment, (2) recognition that the real economy operates in historical rather than logical time and that institutions can only go forward, that they develop and change over time--therefore, the theoretical assumptions of an economic model should be based on real empirical observation, and (3) the belief that the economy is constantly changing, quantitatively and qualitatively, and that although these changes cannot be predicted it is possible to study the process of expansion, the dynamics of the system.

For the post-Keynesians, economics is the study of how an economic system (the set of social institutions responsible for meeting the material needs of a society's members) is able to expand its output over time by producing and distributing the social surplus. Central to the theory is the concept of surplus which is available for expansion. The actual availability of the surplus depends on how it is distributed among workers, property owners, and businesses. Growth depends on the extent to which the surplus remains within corporations, to be used as internal sources for financing investment. Post-Keynesians recognize that expansion in capitalism is cyclical. They believe that there is no discernible limit to growth and that the process of expansion is likely to change the nature of the system and its institutions in unpredictable ways. Thus, capitalist growth can continue indefinitely even though institutions change, so long as these changes are appropriate.

Post-Keynesian consider growth to be intrinsic to the economic system. Their theory emphasizes the decisive role of investment in determining the rate of growth and level of profits. However, investment contributes to the determination of both aggregate demand and aggregate supply (productive capacity). Because investment tends to affect supply more than demand, the economy experiences periodic business cycles as a result of overexpansion of productive capacity.

Post-Keynesians downplay the role of markets and competition along with the substitution effect of changes in prices, which are so important to the neoclassical view of market operation and of the market system's ability to respond to consumer demand. Post-Keynesians believe that market competition mainly affects the long-run reallocation of resources on the basis of varying profit rates in different industries. Competition tends to equalize profit rates across markets. Capital moves to more-profitable from less-profitable industries. Because competition does not determine price changes, it does not ensure the continual substitution which is the basis of a demand-satisfying economic allocation of resources, such as is predicted in the neoclassical model.

Post-Keynesians describe the market system as a dual economy, only part of which is based on the competitive forces described in the neoclassical model. The most significant part of the economy is planned; it is made up of powerful corporations operating in oligopoly markets. These firms set prices to cover costs, plus a markup adequate to provide internal financing for investment. Their goals are not short-run profit maximization but long-run growth in their shares of the market. Therefore, changes in supply and demand do not necessarily create price changes.

Post-Keynesians consider the technological requirements of production to be crucial; continuing operation and expansion are critical factors in determining resource allocation. The economy is an input/output system, and demand is determined mainly by the technical input needed to ensure continued operation. The important decisions are made, not by millions of individual economic decision makers, but by a relatively few managers in the planned sector of the market economy. Consumers, workers, and small competitive businesses react to the market conditions created through the operation of the planned economy.

According to the post-Keynesians, labor markets are not real markets in neoclassical terms. Workers do not earn the value of their marginal product; labor supply is determined mainly by the number of available jobs; labor and capital cannot be substituted in the short run because of the technical requirements of production. Inflation is the outcome of the fight over the distribution of income and the tendency of corporations to be willing to raise wages relative to productivity, thus

inflating prices. The banking system accommodates to these higher prices by increasing credit and the money supply. Thus, the money supply does not determine prices; prices determine the money supply.

Post-Keynesians argue that monetary restraint only reduces aggregate demand; it has little effect on inflation. Fighting inflation by means of such policies mainly reduces output--therefore investment spending, therefore profits, and therefore economic growth. They believe that inflation is endemic to this stage of development of our institutions, and that it can be eliminated only through fundamental institutional change. An income policy is needed which restricts increases in wages, interest rates, dividends, and rents--the sources of personal income. The willingness of individuals to agree to such a policy implies willingness to stop fighting over income shares. To obtain this cooperation, it is necessary to ensure economic growth, and therefore a fair share of an increasing pie. This requires what is called indicative planning--cooperation between business, labor, and government to enure adequate funds for internal financing of investment as well to ensure investment in areas necessary to further economic growth.

The Marxian Paradigm

The Marxists have much in common with the post-Keynesians; indeed, Marx was a classical economist. However, there are crucial differences between the two schools.

First, Marx saw capitalism as a necessary but transient phase of history which, as it developed, would eventually be transformed into the next phase, socialism. Marx's major work, Capital, is an analysis of the laws regulating capitalist development. His analysis indicated the nature of this development and identified the inherent contradictions in capitalist development which would lead to its transformation.

Second, Marx sought to explain historical change, to identify the laws of motion in capitalist development, whereas post-Keynesians confine their study to the dynamics of capitalism without trying to explain the basis for institutional change.

Marx retained the basis of classical economic theory, the labor theory of value, and used it to explain the source of surpluses. To Marxists, value--output--is created by human labor. Capitalism is

dynamic and growth-oriented because the industrial capitalists, who control capital, hire labor at a fixed wage and control the labor process so as to increase the productivity of labor. They then sell the commodities produced and retain the surplus. The workers who produce the value earn only a subsistence wage; the actual amount of the "subsistence" wage is based on historical circumstances and class struggle. Thus, class conflict is inherent in a capitalist economy. Workers produce the surplus, but capitalists control it; it is the source of capital accumulation. As workers become aware of their exploitation, they develop their own working-class institutions and strategies for improving their lot--which, of course, are opposed by capitalists more or less successfully. This class conflict brings about institutional change.

For Marx, the motivating force for change was class struggle between the exploited workers and the capitalists. Furthermore, capitalist competition continually revolutionizes the processes of production and distribution (which Marx called "circulation") and the techniques of production as a result of efforts by capitalists to accumulate capital, which they can do only by reinvesting their surpluses. He believed that in order to understand capitalist development it was necessary to use class analysis, which assumes the existence of antagonistic relations that bring about class conflict.

Using class analysis based on on the labor theory of value, Marx derived the following laws of capitalist development which imply its eventual self-destruction, its transformation into some new and presumably improved stage of human history:

1. The law of absolute capital accumulation, which assumes that capitalism tends to accumulate both capital and a reserve army of the unemployed because of the tendency of the capital-to-output ratio to increase over time with the accumulation of capital.

2. The law of accumulation of unproductive consumption, which holds that as capitalism develops more and more unproductive jobs are needed in order to assure reproduction of the system. (These are jobs in which workers do not create value, but consume it--for instance, jobs in banking, real estate, and government; the result is inefficiency and waste, contributing to declining profits and growth rates.

3. The law of unequal exchange, which posits that as capitalism develops the value that is created is not distributed equally or on the

basis of contributions to production. Instead, big businesses with high capital/output ratios tend to control more value than they produce, while small businesses which use more-labor-intensive methods produce more value than they are permitted to retain. The result is an increasing tendency to promote capital-intensive rather than labor-intensive methods of production. This is all part of the general tendency in capitalism to universalize capitalist production, gradually but continually destroying peasant and home production and moving it into the cash nexus of the market. This process creates uneven development, with older capitalist industries and newer capitalist sectors competing for available resources.

Finally, Marx mainly studied the transition from feudalism to capitalism and the industrial capitalism of the 19th century, which closely resembled the perfectly competitive model of market operation. He recognized the tendency of competition to turn to monopoly through the process of capital accumulation, which brings about concentration and centralization of capital in an increasingly smaller number of increasingly larger firms.

Marx never studied monopoly capitalism; however, contemporary Marxists are studying this stage of capitalism. Inherent within monopoly capitalism, they believe, is the inevitability of cyclical and uneven development, of inequality and injustice, of declines in profits and growth. Therefore, the system will eventually lose all justification for its existence.

The implications of such a theory are clear: Marxists work for the socialist transformation of society; therefore, they do not belong in policymaking roles within capitalist institutions. They must work on the periphery to change working-class institutions and to help develop within capitalism the new kinds of social relations which will make a socialist transformation possible.

Summary View of the Four Competing Paradigms

The major characteristics of each of the four competing paradigms described in this subsection are shown in Figure 6. For each paradigm, we have identified the key words or popular terms associated with each philosophy, the catalysts which are assumed by each school of thought to

Figure 6

SUMMARY CHARACTERISTICS OF FOUR ECONOMIC PHILOSOPHIES

Philosophy	Characteristics					
	Key Words	Economic Catalysts	Key Assumptions	Policy Goals	Political/Govt. Involvement	Major Policy Measures
Neoclassical Paradigm	Free market Free enterprise Laissez faire Monetarist	Consumer and investment demand Individual initiative/free choice, motivated to take risks to earn high returns	Rational economic decisions of individual based on individual preferences Perfect competition High substitution effect from changing relative prices	Economic freedom Technical efficiency	Minimal Protection of private property and personal liberty	Assure steady growth of the money supply - growth in GNP Balanced federal budget Use of gold standard if necessary or possible
Neoclassical/ Keynesian Synthesis	Mixed market economy Keynesianism	Consumer, investment, and government demand Initiative based on market incentives	Possibility of less-than-full-employment equilibrium Rational individual decision making Imperfect market structure and therefore bottlenecks	Full employment Stability Income security Technical efficiency Growth	Moderate Management of aggregate demand Use of market incentives	Government taxing and spending Control of interest rates Tax incentives Some regulation
Institutionalist/ Post-Keynesian Paradigm	Countervailing power Dual economy Advanced industrialized market economies	Major producers' use of surplus for growth through investment Technology	System view of the economy Dual economy Technological constraints Institutional constraints due to historical development of the system	Equity Stability Growth Institutional change Technological progress	Extensive Management of prices and investment	Income policy Indicative, planning of private investment through a planning commission made up of representatives from industry, labor, and the public
Marxian Paradigm	Marxism Socialism Social democracy	Capitalists' control created by surplus labor to accumulate more capital Change/progress through class struggle	Inevitability of historical transformation Inherent self-destructiveness of capitalism Class conflict	Equity Justice Humanistic social progress	Minimal except at local levels, or related to workers control and income redistribution	Policies that will empower working class and redistribute income Political action to promote socialist transformation

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make the economy work, the key assumptions of each philosophy and its primary goals, the level of political or governmental involvement advocated by each one, and, finally, the major policy measures identified by the advocates of each paradigm for achieving their goals.

3. A TEACHING PARADIGM

In our experience one of the major pitfalls of teaching in general, and of teaching economics in particular, is the lack of a well-developed pedagogical approach. All of us who have taught are aware that students "tune out" or become "turned off" with one single approach. We try to make content presentations interesting and meaningful, yet we often find ourselves searching for variety in our teaching approaches and wanting to incorporate new ideas and strategies into our classroom presentations.

One of the benefits of the curriculum research and development work in science education in the 1960s and 1970s was the serious consideration of learning theory and teaching strategies. Developers had the opportunity to think through and test a variety of teaching methods in classroom situations. This section describes a number of these approaches to teaching and learning which are useful in planning to teach economics.

A Model Theory of Learning

It is important that teaching be grounded in a view of how students learn. We suggest a teaching/learning strategy based on a theory of learning popularized by Richard Suchman. Suchman describes thinking and learning as the same process--the creation of new meaning by a person. Suchman's model of learning/thinking involves two important terms: encounters and organizers.*

Encounters are the contacts people have with the world around them. Life is a succession of such contacts, even though the intensity of encounters varies. Encounters do not of themselves generate meaning for the encounterer. The chief expedient for this extraction is the organizer.

An organizer is a condition of mind (data, ideas, theories, methods of thinking) that permits the individual to react to encounters in selected ways--reflectively, conventionally, creatively. Organizers are

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*Suchman's model was presented in detail in a series of articles in Instructor, August 1966-May 1967.

the knowledge, skills, and attitudes that a person has already acquired. They organize a person's thinking. They are patterns which guide the selecting, grouping, and ordering of encounters. Every individual has knowledge stored for use which organizes or controls learning from the new encounter. For instance, watching a session of the U.S. Congress (an encounter) is meaningful to many Americans because of their previous knowledge about our federal legislative system (the organizer).

The process of learning/thinking creates new meaning through the interaction of encounters and organizers. In any encounter, a person's organizers determine what information he or she perceives from the encounter. The person then incorporates the new perceptions and insights into what he or she already knows. Through this process, the person creates new organizers and alters or transforms old organizers.

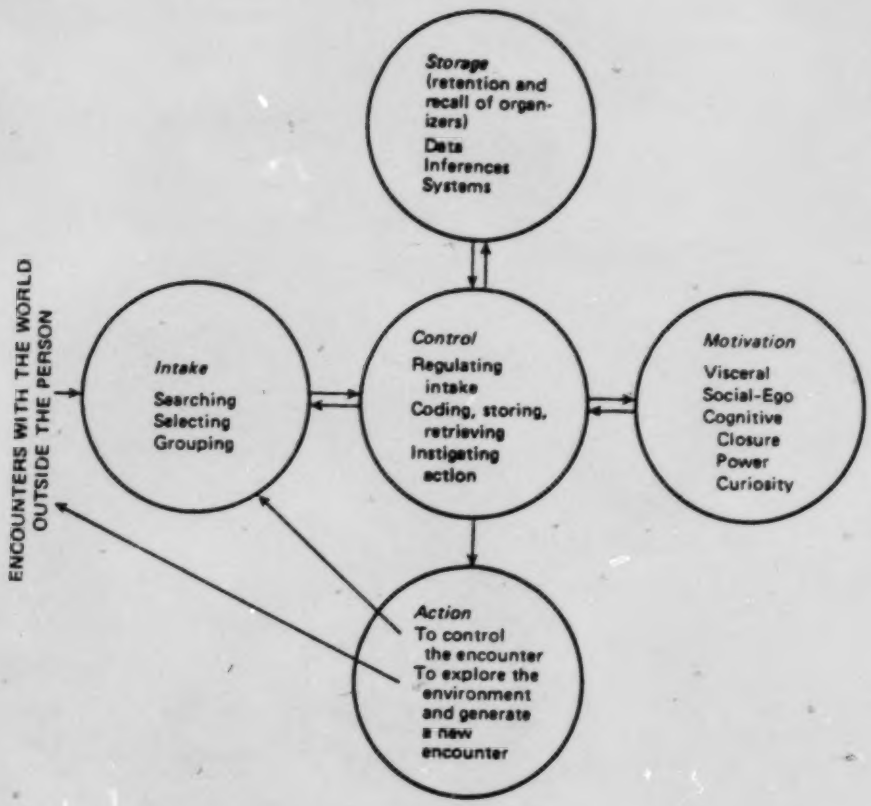
For instance, suppose a student is "encountering" a lecture. The student will use existing organizers to select and store certain parts of the lecture. As long as the lecturer talks in an understandable manner and the lecture is perceived as important, the student will continue to absorb and incorporate various parts of the lecture and thus acquire new organizers.

To take another example, suppose that students learn, through reading a text, that division of labor increases labor productivity. This new idea is absorbed as a new organizer. The next time the students do a group project, they can devise some type of division of labor in order to complete the project. This experiment creates new encounters and organizers related to the concept of the division of labor. The students extend their understanding of and ability to use the new organizer, which sensitizes them to notice real-life examples of division of labor. In this way, they continually change both their encounters and their organizers.

In fact, instead of depicting learning/thinking as a circular process, it is more accurate to describe it as a spiral development of a set of organizers which become integrated into a system of thought and action during a person's life. A person, through the interaction of encounters and organizers, is continually learning and building a more-powerful cognitive structure while increasing his or her awareness of the world.

Figure 7

SUCHMAN'S MODEL OF A PERSON'S LEARNING/THINKING PROCESS



Suchman describes the learning/thinking process by the model shown in Figure 7. This model provides a framework for analyzing the learning process and can be used to analyze the dynamics of the classroom. The model shows the various thinking functions in the form of a cybernetic system. These functions are intake (perception), storage (retention and recall), control (regulation and mediation), motivation, and action.

There is a circular flow of thinking activity from the encounter to the learner and back to the encounter:

--The encounter permits intake (perception).

--Control regulates intake (perception) by determining which organizers will be recalled and used to permit the intake of new data.

--Control also determines what new intake will be stored.

--Control affects and is affected by motivation.

--Control determines what action the individual will take.

--The action completes the cycle. The person acts to alter either the intake or the environment to provide new encounters.

The model includes motivation as one of the components of learning/thinking and identifies three kinds of motivation. Visceral motivation is created by survival needs: hunger, thirst, physical safety. Social-ego motivation is created by the learner's desire for acceptance and status--for instance, a desire to show what he or she knows in the hope of gaining approval. Cognitive motivation is the learner's own desire to learn--to find an answer (closure), to satisfy curiosity, or to seek power in order to control the environment and predict new events.

Suchman's theory highlights the importance of motivation in determining what is learned. Although the instructor may "control" the classroom, students ultimately control their own learning. They respond to social-ego motivation if they want to please the instructor or stay in good stead with their peers. They respond to internal desires to learn when they want to gain closure, satisfy curiosity, or gain the power to solve problems which interest them.

Approaches to Teaching and Learning

Suchman identifies a continuum of teaching/learning situations, from those very tightly controlled by the teacher to those in which students are free to do as they choose: (1) rote learning through drill

and retention, (2) didactics, (3) diagnostics, (4) inquiry (projects, teacher-guided inquiry, student-guided inquiry), and (5) play.

Rote Learning

Rote learning, or memorization, is useful for mastering simple but necessary facts which the students need to know. The multiplication tables are a classic example of such necessary knowledge, and it makes sense to devise rote-learning procedures for memorizing such basics. In rote learning the teacher controls what is to be learned and determines the student's expected response; the student has no control at all, short of refusing to participate.

Didactics

Didactics means learning specific knowledge by being told (through a lecture or film) or reading. Didactic learning has the following characteristics:

--The instructor or the learning materials control the environment in order to generate a particular set of encounters. Students listen to a lecture, read a book, or watch a film.

--The purpose of the encounter is to present organizers and to control the new meaning which students store for recall.

--Motivation to learn is more likely to be visceral (the rod) or social-ego (approval) rather than cognitive.

--During a lecture or reading assignment, successful learning depends on the student's willingness to select and group for storage what the instructor or author wants the student to be able to recall. Recitation and examination can be used to build evaluation into the learning situation. Both recitation and examination require student action to display retention or comprehension of the newly introduced organizers.

--There is little student control of the learning situation except to decide whether to participate. Didactics may be a quick way to instill new organizers, but success depends on students' willingness to participate and on their ability to follow and absorb the learning as it is presented. In the case of lectures, the fact that the instructor controls the learning pace may create further problems for the learner.

Didactic instruction is the most common teaching strategy; most students expect to learn by being "told" or by studying text material. The quality of didactics depends heavily on the organization of learning around specific learning objectives--the design of a sequenced exposition which is geared to teaching to the objectives and to the needs of the students, particularly to their prior knowledge, interests, and ability to learn.

Diagnostics

Diagnostics requires probing students' knowledge, atttitudes, and skills to find out what they know, how they think, and what their opinions and interests are and then building on this information to expand understanding and skills or to correct misunderstandings. Awareness of students' patterns of thinking and existing structure of knowledge helps the instructor design a course that meets the special needs and interests of individuals or groups of students.

Diagnostic teaching has the following characteristics:

--The instructor creates the encounter, which consists of a sequence of questions designed to probe and restructure student knowledge.

--The situation is often open-ended in order to encourage students to respond in their own ways.

--The instructor accepts all student responses and helps students restructure what they know through the questioning sequence.

--Diagnostic instruction often involves student/teacher interaction on a one-to-one basis.

Diagnostic teaching is characterized by considerable teacher control. The instructor is both diagnostician and learning director, using questions to expose the array of knowledge that the student has available and the kinds of connections that he or she has previously made between the parts. The instructor pushes the student to examine his or her own methods of acquiring, sorting, and storing knowledge, thus forcing revision and new learning. The questions direct the actions of the student's control center, strongly influencing intake, retrieval, and the attempted cognitive matches. The goal is to engineer a desired change in student storage and to give the student new organizers, and thus new power to gain meaning from his or her encounters. Ideally, the loss of student

autonomy is offset by the successful restructuring of the student's knowledge. Ordinarily, diagnostics is most effective when the student wants to learn or wants to overcome some learning problem. Diagnostic teaching may be designed by the instructor, or it may take other forms--for example, programmed instruction. Other kinds of diagnostic techniques can be used with the whole class. (See the brainstorming techniques described in Section 4.)

Diagnostic teaching can be used in at least four ways: (1) as a unit "opener," (2) as an assessment device, such as a pretest or a programmed learning module, (3) in individual conferences, and (4) to share the results of small-group work.

An opener is used at the beginning of a teaching unit to elicit a high level of student response. A provocative question--for example, "What causes poverty?" or "What do you want to know about economics?"--can stimulate ideas. Students' responses should be followed by a series of questions designed to probe how they know what they know and why. Students need to be pushed to use what they know, and the instructor needs to know that students understand the content well enough to proceed with further material.

Although it is not very fashionable these days, programmed learning is one of the best ways to find out whether students know something. Programmed learning is almost risk-free for students: they can work at their own pace, and they can use the criterion tests as a basis for non-threatening assessment. Pretests are useful diagnostic techniques if they are not graded but instead used to inform students about what they will learn and to inform the teacher about what students already know. Individual conferences, while time consuming, can help the instructor determine how well a student is prepared to undertake a new learning experience. In economics it is particularly important to diagnose student learning blocks so that remediation can take place.

In small groups students can work cooperatively on a given task without continual direction from the instructor. Most small-group problem-solving sessions should end with a general debriefing with the whole class. That is, two or more groups should report their results to the rest of the class; students from other groups or the instructor can then critique and question each group's work. The instructor should use

a debriefing session as a diagnostic strategy for permitting students to clarify their ideas and correct misconceptions or misunderstandings. The process of diagnosis and correction can be accomplished through either teacher-directed discussion or student sharing of ideas.

Inquiry

Inquiry learning requires students to engage actively in the thinking/learning process in order to learn through personal discovery or problem solving. Inquiry learning can be based on a teacher-guided activity or it can be completely controlled by students, who initiate the project and carry it through on their own, using the teacher as a resource.

The new curriculum programs of the 1960s and 1970s emphasized the importance of inquiry-oriented teaching strategies. Such strategies play an important part in such teaching techniques as brainstorming, role playing, gaming, and conflict analysis. Inquiry strategies generally have the following characteristics:

--The teacher sets the stage by organizing an activity that is structured to generate a particular encounter or problem.

--The instructor, students, and/or materials provide organizers which students can select for use.

--Students produce or use these organizers to generate their own meanings--their own understanding of the encounter.

--Motivation is cognitive (primarily curiosity), and cognitive desires and satisfaction form the feedback loop. Social-ego motivation may be important if students are working together in a small-group project.

--Action follows from the students' desire for new encounters and their freedom to generate them by altering the environment or by reordering previous encounters.

--The ultimate purpose of inquiry is to develop an autonomous inquirer--one who has the motivation and self-confidence to learn as well as enough powerful organizers to be successful in generating new meanings. The inquirer is then in a position to obtain sufficient cognitive satisfaction to be self-motivated.

Although inquiry strategies are broadly categorized into deductive and inductive inquiry, in fact both kinds are often used in working on the same problem. It is expected that the students will move from one to the other as they work on problems.

Deduction is the process of drawing logical conclusions from a concept, generalization, or theory. This process happens whenever the instructor poses a question which requires students to draw implications from definitions or theories. Many exercises in economics formalize this process by ordering questions so as to guide students through a logical sequence leading to some set of conclusions. Such activities help students to (1) sharpen and refine their concepts, (2) make predictions based on the concepts, and (3) draw additional conclusions.

One form of deductive inquiry common to economics is the building and testing of models in order to derive logical conclusions from the interrelationships described by the model. Students should be given many opportunities throughout the course to construct their own models.

Inductive inquiry is the process of generalizing from particular facts. In order to do this, it is necessary (1) to observe, (2) to classify observations, (3) to form hypotheses, (4) to verify hypotheses through further observation, and (5) to form a generalization. This technique is the basis of comparative case studies, in which students study similarities and differences as a basis for forming generalizations.

One of the most effective applications of inductive inquiry to the classroom was made by Hilda Taba. Taba described three cognitive tasks which should be kept in mind when using inductive inquiry: (1) concept formation, (2) data interpretation, and (3) application of principles.* For each task she suggested the following series of questions designed to elicit student responses during an instructor-directed inductive inquiry session:

--Forming concepts: (1) What kinds of things did you note, see, hear? (2) What things go together? Why? (3) Is there a label or phrase that you can think of which describes the categories?

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*See Hilda Taba, Teacher's Handbook for Elementary Social Studies (Palo Alto, Calif.: Addison-Wesley, 1967), pp. 87-91.

--Interpreting data: (1) How are the categories similar? Different? (2) Why do you think these kinds of things [refer to the specific event(s)] happened? (3) What conclusion(s) or hypothesis(es) would you make about [use specific event(s)]?

--Applying principles: (1) Using the conclusion or hypothesis you have made, what would happen if such and such occurred? (2) Why would it happen? (3) Does your conclusion or hypothesis check out with other cases? (4) If it does check out, do you think it would apply to all possible cases?

After students have worked through the questioning sequence outlined above, the instructor should help students develop more-effective strategies on their own, by asking such questions as: "Did you consider . . . ?," "Why do you suppose . . . ?," "How about this relationship . . . ?," and "How you can test . . .?"*

Play

Although play is not a formal teaching strategy, it offers unlimited learning possibilities. Play is essential to the intellectual development of young children, and it can be used in conjunction with more-formal learning experiences with any age group. In play, conceptual thinking arises spontaneously.

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*For an elaboration on this idea, see Bruce Joyce and Marsha Weil, Models of Teaching (Englewood Cliffs, N.J.: Prentice-Hall, 1972), chapter 8. For a handy, practical guide to classroom questioning, see Norris Sanders, Classroom Questions: What Kinds? (New York: Harper and Row, 1966), which is particularly useful because many examples of questions are from economics.

4. STRATEGIES FOR TEACHING ECONOMICS

Economics has sometimes been called the dismal science. Certainly, many students have thought of their economics courses as pretty dismal. They find the material abstract, difficult, and irrelevant, since what they have to learn does not help them understand the personal and public economic issues that concern them. Most studies of the effects of such courses have shown conclusively that exposure to an introductory economics course seldom has much lasting effect on students' economic reasoning powers or understanding.

There are several problems in teaching economics, primarily because the discipline of economics is highly theoretical. Students do not perceive a need to learn a body of ideas that do not appear at first to be related to the real world. In addition, grasping economics requires students to be able to think in abstractions, and many high school students have not yet had much practice in abstract reasoning.

Another problem in teaching economics is that the subject becomes highly controversial as soon as it involves government policy. Economists and politicians seem to be in great disagreement, and it is not at all clear how a layperson can unscramble the arguments in order to make sense of them.

Teaching economics effectively requires recognizing these problems and developing an overall strategy for coping with them which encompasses (1) teaching students the basics, (2) giving students practice in developing the skills of economic reasoning, (3) demonstrating the relevance of economics to everyday life, and (4) teaching students to analyze controversy and to evaluate competing proposals.

The basic point is that relying 100 percent on didactics--studying a text and listening to lectures--will not work. A variety of activities must be planned which provide students with opportunities to develop skills and interest in economics. These activities must include diagnostic and inquiry-oriented teaching techniques.

Using the Suchman learning/thinking model (see Section 3) as a basis for developing an overall teaching strategy, we have found the approach described below very successful in involving students in a spiral develop-

ment of their thinking about economics.

--Identify the important course organizers and make it easy for students to learn how to use them. Limit what students are required to know; then find a good text, supplemented by lectures and exercises, to reinforce the learning. Choose what is important for students to know, and communicate this information to them.

--Provide a wide variety of encounters in which students can use these organizers to understand and analyze specific economic events. Give students opportunities to practice using their new organizers on actual problems.

--Alternate types of learning activities, so that students can learn new organizers and then apply them immediately to concrete situations. Intersperse theory with practice. In this way, students get an immediate payoff and they learn more about the organizers through using them.

--Provide review and synthesis activities so that students can extend and combine what they know into more-useful systems of thought. Devise opportunities for students to combine organizers in analyzing or studying a practical problem.

--Create a teaching/learning environment which operates more through cognitive motivation than through social-ego motivation. This may mean shifting more control of learning to the students so that they may explore what is useful to them.

It is important to alternate the introduction of economic principles (organizers), through didactics and diagnostics, with practice in using the organizers on economic problems. Feedback on and evaluation of their progress (as opposed to grading) is important to the strategy because it helps students become more successful, and success is an important motivator. The basic strategy flow looks like this:

1. Use of opener or other kind of introductory material to focus students' attention on content.

2. Introduction of knowledge and skill material.

3. Extension and amplification of content to extend students' understanding and enable students to create new meaning.

4. Review and summary to enable students to diagnose their own progress.

This basic strategy builds in variety and therefore makes a class more interesting. We have found the generic teaching activities described at the end of this section to be very useful in teaching an economics course organized around theory and applications.

Group Process Techniques

There are a variety of ways to organize classroom learning. One approach is to vary the size of the learning group and to use group process techniques to train students to be effective group members. Such techniques help set up stimulating learning situations and make possible active and continuing student participation.

Classroom organization and group process are important components of any strategy that allows students to learn from their own experiences and whose aim is to develop learning through a variety of student/student and student/teacher interactions. Small-group processes also develop participation skills. Students learn how to be effective group members. Furthermore, participation skills foster learning through interchanges between students. Such interchanges require each student to become actively involved in what is going on in the course.

Through the effective use of group process, students can establish an open climate for learning and test a variety of models for data collection and inquiry. Because group activities rely heavily on interpersonal relationships, students in groups have many opportunities to influence each other, receive and give help, and enhance communication skills. The suggestions that follow are offered as helpful guidelines in working with groups.

Forming Groups

Careful grouping procedures will increase the likelihood of success in group tasks. Early in the course, it is desirable to experiment with placing students in a number of different groups in order to discover which combinations work well together. Generally, it is important to put people together who are more or less alike. That is, talkers should be grouped together and nontalkers together; slower students should be placed in a group by themselves and more-able students together. The opinionated students can try to overpower one another, while grouping

the relatively nonverbal students together may help some of them express themselves openly. After effective groups have been established, they can be designated as permanent.

Assigning Roles

In most group activities in which students are required to complete tasks, it is desirable to have each group choose a recorder and a facilitator/leader. It is good practice to rotate these responsibilities, since important skills are involved in learning to record group work accurately and to ensure that the group is productive. It is particularly important for students to learn to record proceedings as completely as possible, avoiding the temptation to edit the suggestions or disregard the contributions of some group members.

Calling Stop Sessions

One quick and effective technique for training people to work in small groups is the stop session. This technique can be used whenever students are doing any type of group work. The process involves stopping a small-group discussion or problem-solving session for five to ten minutes so that each person in the group can evaluate his or her and others' participation in the group. These personal reactions or evaluations are shared with the other members of the group. If improvements are needed in individual or group behavior, these can be discussed briefly before the group resumes its work.

The stop session can be called by the instructor or by the facilitator/leader. Here are some examples of the kinds of questions which the group members can be asked to consider:

--How well was I listened to? How well did I listen to others? What evidence am I using to back up these conclusions?

--How did I contribute to (or make more difficult) the discussion or group work? How could I improve my participation in the group?

--Which people in the group matched each of the following role descriptions: (1) listener, (2) critic, (3) facilitator or helper, (4) idea generator, (5) idea clarifier, (6) summarizer?

--What improvements could be made to increase the effectiveness of the group in accomplishing its task?

Participants in the groups should be asked to think about or write down their reactions to these questions. Each person should share his or her reactions with the group. If the group has had problems, concrete suggestions for change should be made, and the group then should resume its regular discussion in order to practice the new methods. Another stop session can be called at the end of the discussion to discover what progress was made in improving group interaction.

Judging Group Effectiveness

If students are not accustomed to working in groups and are having problems working together effectively, it is wise to set aside a class period early in the course for debriefing a group work project in order to allow students to identify the characteristics of a good group. This should be done immediately after students have completed a small-group project. The following procedure should be used:

1. Divide the class into groups of four to six students.
2. Distribute copies of the ranking form in Figure 8.
3. Ask each group to choose a recorder.
4. Tell the groups to follow the instructions on the ranking form.
5. After all the groups have finished the task, post the results and conduct a general class discussion on the characteristics of a good group.

Emphasize that there are no "right" rankings. (The most important characteristics are numbers 1, 2, 4, 5, 10, 11, and 12; the other characteristics may be useful and important in some situations.) The discussion should include observations about the extent of participation in the task and the amount of interaction that occurred. Also, the members of each group should be given the opportunity to decide whether their group functioned as a "good" group.

Summary

In summary, here are some helpful hints in working with classroom groups of various sizes.

--State tasks for groups clearly and try to define each task in such a way that it can be accomplished within a reasonable time period.

Figure 8

RANKING FORM: CHARACTERISTICS OF A GOOD GROUP

Your group task is to rank the following statements according to what you think are the characteristics of a good group. Place a "1" by the statement that you think is the most important, a "2" by the statement you think is the next in importance, and so on. Work on this task as a group. You may proceed in any way you wish as long as you work as a group--not as individuals.

1. _____The competition among group members is healthy but not destructive.
2. _____All members stay closely to the task/point of discussions.
3. _____Conflict situations are avoided.
4. _____Group members carry out leadership functions.
5. _____Each group member is sensitive to others' feelings.
6. _____The group leader suggests an agenda for each group meeting.
7. _____Hostility and aggressive behavior is expressed.
8. _____Informal subgroups develop within the larger group.
9. _____Group members express negative feelings.
10. _____Goals/tasks/objectives of the group are explicitly stated.
11. _____Information is freely exchanged.
12. _____When tasks are performed, members' feelings are taken into account.

--Give each group specific instructions about leadership, recording, reporting, etc.

--If there is to be a stop session, clarify the instructions for sharing information and debriefing the session.

--Be sure to establish beforehand any unique procedure for arriving at a conclusion; for example, majority vote, consensus, or rank ordering.

--If there is to be a formal meeting of either a small group or the entire class, be sure to establish the following: the purpose of the meeting, the expected meeting outcome, the agenda-setting procedure, the agenda review procedure, time constraints, and evaluation or debriefing procedures.

Specific Classroom Strategies

"Openers"

Each unit of study should begin with some kind of introductory experience designed to arouse student interest and curiosity about what is to be learned. The use of such an "opener" also draws out students so that the teacher can determine what they already know and what their interests are. An opening activity should involve a high level of student participation. Brainstorming on a controversial question is a useful opening activity; displaying a sensitive or evocative collage or picture is another good way to elicit student reaction. Games, movies, slide shows, or other media experiences, combined with student participation, can also be effective.

Brainstorming

Brainstorming is a procedure for generating a great number of ideas or alternatives about a particular subject in a short period of time. This technique encourages people to be creative by setting up a situation in which criticism and evaluation are not allowed.

In a brainstorming session, participants are asked to react to a question or problem by writing down or calling out any reaction which comes to mind. These ideas are collected and recorded for future use. The following rules for brainstorming should be posted and enforced by the leader of the brainstorming session:

Brainstorming Rules

1. Say anything that comes to mind.
2. Discussion of other people's statements is not permitted.
3. Evaluation or criticism of other people's statements is not permited.
4. Repeating someone else's idea is okay.
5. Piggybacking on someone else's idea is okay. That is, it is permissible to add to or slightly change someone else's suggestion.
6. Even if you think you are finished, keep on going. Silence is okay.

The time required for brainstorming sessions will vary, depending on the topic or problem. Usually ten minutes will be sufficient, providing time for 20 or 30 responses.

In addition to large-group brainstorming, individuals can brainstorm independently by jotting down on paper everything about the subject which comes to mind. This information can then be collected and processed by a larger group. Groups of two, three, or four can also brainstorm.

To conduct a large-group brainstorming session, use the following procedures:

1. Post the rules for brainstorming.

2. Ask someone who can write rapidly and clearly to record the responses on poster paper or on the chalkboard. Use the speaker's exact wording, and number the responses as they are recorded.

3. Post the question or outline the topic which is to be brainstormed. Make certain that the question or topic is clearly understood by the group before proceeding with the recording of ideas.

4. Collect and record responses until the group seems to be finished or until time runs out. (Be sure to enforce the rules for brainstorming, in particular the prohibition against evaluation.)

Brainstorming can be used for at least two kinds of situations. First, it can be used to elicit reactions from students about some topic or experience for the purpose of finding out what students are feeling or thinking or what they already know. Second, brainstorming can be

used for problem solving. Students can brainstorm to generate ideas at almost any stage of the problem-solving process. For instance, they can brainstorm to identify the nature of the problem, the causes of the problem, possible solutions, the consequences of attempting a particular solution, and the steps of following through on a solution.

How a list of brainstormed ideas can be used depends on the specific question or topic. Once the processing of ideas begins, the rule against evaluation and criticism is no longer in effect.

The reason for asking students to process the brainstormed ideas is to allow them to make generalizations or identify concepts. This process is a form of instructor-guided inductive inquiry. The following procedure is suggested:

1. Ask the group to suggest which reactions, ideas, or feelings seem to be similar. List these by number. (Generally, if there have been about 30 responses, they can be clustered into five or six groups.)

2. Ask the group to come up with a term or phrase that best describes each category.

3. Ask the group to write two or three statements that include the terms or phrases identifying the categories.

4. If desired, ask the group to agree on one statement best represents all the ideas generated.

Small groups and individuals can process their own brainstorming. It is not necessary to have the entire group agree on one or two statements arrived at by the small groups or individuals.

Brainstorming is particularly useful in trying to find a solution to a problem or in organize a plan of action. In such cases, the group should process the brainstormed ideas to find the most useful or plausible suggestions. This process might require combining ideas to make new topics or questions which can be explained further in yet another brainstorming session. Students could pick several items on the list which they think are extremely important and brainstorm the causes of these aspects of the problem or sources of help in finding solutions.

Jurisprudential Strategy

A jurisprudential teaching strategy can be used to study public issues. Most public policy issues are appropriate for this strategy,

which combines inductive and deductive inquiry. Students learn to use the techniques of rational consent and discover that many disagreements over public issues can be resolved by such processes.

In analyzing conflicts, students learn to identify issues of definition, fact, prediction, and value. Issues of definition involve the meaning of the issue to others and the meanings of terms or words. Issues of fact are related to the actual realities of a particular situation. Issues of prediction involve people's interpretations of the consequences of a given situation or of a set of facts. Issues of value involve people's perceptions of the relative goodness, badness, rightness, or wrongness of a particular situation.

The following series of intellectual operations which students can use to analyze a public issue are modifications of those developed by Oliver and Shaver:*

1. Identify values which underlie specific situations.
2. Identify conflicting values.
3. Recognize that some values are held more strongly than others.
4. Be prepared to deal with analogous value situations.
5. Make and test policy decisions.

The procedures for using the jurisprudential model are outlined below, using the issue of deficit spending and public debt as an example. The objective is for students to learn how to follow the five steps of public policy issue analysis. Students analyze two or more conflicting views of an issue to uncover the major value disagreements and to discover how these differences might be reconciled.

1. Identify the values held by each party. Students should take notes to list the issues of fact, definition, prediction, and values. On issues of fact, students can refer to actual data. To clarify issues of definition, students should examine all the conflicting positions in order to identify differences in the meaning of words and special terms used to color the discussion. To pinpoint issues of interpretation or prediction, students should examine the differences in predicted outcomes. On issues of value, students should look for beliefs held by

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*Donald W. Oliver and James P. Shaver, Teaching Public Issues in the High School (Boston: Houghton Mifflin, 1966), pp. 126-130.

different sides of the controversy. These processes are not easy, since often issues are not immediately clear. Students may come up with different interpretations, many of which will have merit. A retrieval chart is a useful way of identifying similarities and differences between the positions.

2. Identify conflicting values. For each statement, identify conflicting values or inconsistencies in the argument. For instance, in regard to the question of public debt, opponents of deficit spending and a large public debt may consider debt to be bad because they oppose a large federal government. However, they favor economic growth and see economic debt as contributing to instability and economic ruin. There is an inconsistency here between the reality and the position taken, since sometimes enlarging the public debt promotes economic growth. A case of conflicting values exists if an opponent of a large debt nevertheless wants a large defense budget.

3. Identify a hierarchy of values for each statement. Try to rank the person's values. Recognize that some values are more strongly held than others. Most strongly held values cannot easily be compromised. By identifying the relative importance of values, it is often possible to strike a compromise or trade-off between the two opposing views to reach a compromise.

4. Make use of analogous situations to help people clarify their values--what they are and their relative importance. This technique, useful in clarifying values, involves probing the advocate to find his or her attitudes toward analogous situations. For instance, a person may consider public debt economically disastrous but think that it is perfectly acceptable for businesses to go into debt. If people can probe the reasons for the differences between two seemingly analogous situations, they may discover some of their own inconsistencies.

5. Make and test policy decisions. Students may be asked to develop policy decisions about the issue in question. They can then be asked to test these decisions in different situations--the effects of financing a war, promoting a certain rate of economic growth, or maintaining stable prices and full employment.

One way to use the jurisprudential model is to form small groups and ask each group to discuss, and possibly come to an agreement on,

some issue being studied in class. Because each group must present and define a policy statement, its members will have to come to some kind of consensus on the issue.

Some groups may get bogged down in discussion; other groups will not reach a consensus. Still others will develop policy statements that they are unable to defend. Even though some groups do not complete the task, part of the debriefing session can center on ways to improve discussions in the future. Such a session can actually be as valuable as mastering the technique of analyzing controversial issues. The following questions can be used to improve future discussions:

--What issues did you discuss?

--Did you define them carefully?

--Who in the group favored what positions?

--Was everyone given an opportunity to express his or her position?

--Did the group come to an agreement on any issue(s)? Which ones?

--What facilitated the discussion and kept it moving?

--What hindered the discussion and made it bog down or become unproductive?

--What could be done to improve your discussion next time?

Role Playing and Simulation/Gaming

Role playing is a social learning method which requires the student to assume the role of another person. In general terms, role playing (1) aids the student in developing basic decision-making skills and practicing communication skills, (2) provides situations in which problems can be defined and analyzed, and (3) gives students the opportunity to view the world from someone else's perspective.

One frequently used role-playing situation involves students in reenacting some historical event or "mock-up" of reality in which they take on roles of other people. The second basic kind of role-playing activity is a form of skills practice in which students play themselves in a new situation. They use role playing to practice handling a telephone interview, a personal interview, or some kind of meeting with the public. Such activities require students to make telephone calls or appointments with strangers in businesses, unions, or government agencies. Practice in making these contacts ahead of time gives students

the needed skills and assurance to get the information they want and to make a good impression.

Role Playing a Simulated Event. The following steps can be used in role playing a historical event or simulation of reality.

1. Assign or ask students to volunteer to take the roles involved in the situation. Give each student a description of the role he or she is to assume or allow time for students to make up their own role statements. If students need time to prepare, give them the necessary information in advance.

2. Set up the situation. That is, describe the environment, the conditions under which the action takes place, and the purpose of the event.

3. Start the action. Students assume their roles and act on some proposition or proposal as if they were the persons whose roles they are playing.

4. Encourage students, each in his or her assumed role, to observe and react to each other.

5. End the role playing after one or more of the action-reaction cycles described in steps 3 and 4 or at the completion of the preset scenario.

6. Debrief the role-playing experience by using the following procedures:

   a. Analyze the problems which developed and seek alternative solutions.

   b. Predict what would happen next and what alternative actions should be taken.

   c. Discuss ways other students in the class might have handled the situation.

   d. Ask students to describe their feelings and concerns when they were playing their assigned roles. How did they feel about other people in the situation?

   e. Draw conclusions about the situation, making appropriate generalizations about such situations and people.

Role Playing for Skill Practice. Role playing themselves in a new situation can be extremely useful way for students to expand their exper-

ience. Several small groups can do this kind of role playing simultaneously. Use the following procedure:

1. Choose some skill or situation that the students are preparing for and describe the situation carefully. Identify several alternative ways to handle the situation and select some alternatives to practice.

2. Set up the situation: assign the roles, set the time and place, and choose a director who begins and ends the role playing.

3. Play out the solution. Use a tape recorder if possible, so that students can play back the session.

4. Instruct the director to cut off the role playing as soon as the situation is clear--that is, when the strategy has been used and the consequences of the strategy have emerged. Cutting off the action as soon as possible is important because it will allow more time for reruns.

5. Discuss how the role playing went from each participant's point of view. Collect ideas for improvement.

6. Try the situation again with a new strategy. Use the same people in the same roles if they need more practice.

7. Discuss and summarize the skill discoveries so they can be reported to the whole class.

8. When the small groups have completed their practice or time runs out, reconvene the whole class to pool results of the small-group work. List the skill discoveries made by the different groups.

Simulation/gaming involves any combination of elements which exist in simulations and games. Usually, in a game, rules are established, goals are set, there is competition among players to achieve the goal, and players either win or lose. In a simulation, a hypothetical environment is established which includes elements of the real world.

The functions of simulation/gaming are almost identical to those of role playing. In addition, simulation/gaming serves to increase awareness on the part of students of the complexities of real-world situations and to stimulate a high level of interesting action in the classroom.

Knowledge and Attitude Surveys

One commonly used diagnostic technique is a survey of students' knowledge and/or attitudes prior to a unit of instruction. Figure 9, a

short true-false test about labor unions, is an example of a knowledge survey. The teacher can use the test results to decide what content to emphasize in a unit on labor unions. Note that all the answers to this test are false; thus, the results of the test should not be shared with students unless a new test is constructed.

Attitude surveys are useful in measuring initial attitudes and then assessing attitude changes at the conclusion of a unit of study. Figures 10A and 10B are two examples of a Likert scale attitude survey on labor unions. Matrices that can be used to summarize the data collected through these surveys are provided in Figure 11.

Using Retrieval Charts

A retrieval chart provides a process for summarizing and comparing data gathered from reading, case studies, data banks, and other resources. Using a retrieval chart helps students identify similarities and differences--a prerequisite for making generalizations--and encourages them to be orderly in their thinking.

A retrieval chart is simply a matrix which shows the cases being studied in one column and each characteristic on which they are to be compared in another column. For example, if a number of corporations are being compared, the column headings might be "Financing Procedures," "Source of Funds," and "Factors Contributing to Growth."

Retrieval charts can be developed individually, by small groups, or by the whole class. They can be used in the classroom in the following way:

1. Construct a chart, identifying each case under consideration and a heading for each characteristic that you want to compare.

2. Fill in the matrix for each case. It is often useful for small groups to work individually to complete different parts of the matrix. Then these parts can be combined and copied on the chalkboard.

3. Focus a class discussion on the similarities and differences between the cases. Students should then be able to identify general rules and exceptions. Students should also suggest explanations for the similarities and differences and speculate about possible reasons for the patterns that emerge. A final step is to consider whether it is possible or reasonable to generalize beyond the cases studied.

Figure 9

HOW MUCH DO YOU KNOW ABOUT LABOR UNIONS?

This is a true-false test. Place a "T" in the blank preceding the statement if you think that it is true and an "F" if you believe that it is false.

____ 1. The majority of workers belong to unions.

____ 2. The AFL-CIO is the nation's largest union.

____ 3. The AFL-CIO was formed by a merger of the American Federation of Laborers and the Consolidated Industrial Operators.

____ 4. Wages in unionized firms average 25% more than wages for comparable jobs in nonunionized firms.

____ 5. The largest and most powerful corporations in the United States pay the lowest wages.

____ 6. If a company has a union shop, you have to belong to the union before you can be hired.

____ 7. Unions are the strongest supporters of right-to-work laws.

____ 8. The majority of strikes in the United States are jurisdictional strikes.

____ 9. The Taft-Hartley Law restricted the collective bargaining rights of unions to negotiation on wages, hours, and fringe benefits.

____ 10. Industries with the strongest unions charge the highest prices for their products.

Figure 10A

WHAT ARE YOUR OPINIONS ABOUT LABOR UNIONS?

Directions: For each statement, circle the number in the column that best describes your reaction.

	Strongly agree	Agree more than disagree	Disagree more than agree	Strongly disagree
1. I am in favor of strong unions.	1	2	3	4
2. Public employees (teachers, garbage collectors, etc.) should be able to belong to unions and have the right to strike.	1	2	3	4
3. Doctors, lawyers, and dentists should have the right to strike.	1	2	3	4
4. Most unions are democratically governed.	1	2	3	4
5. The federal government restricts unions too much.	1	2	3	4
6. Students should be required to join unions even if they are working only part time.	1	2	3	4
7. Unions should participate in local, state, and national politics.	1	2	3	4
8. Unions increase efficiency and motivate workers to want to do a good job.	1	2	3	4
9. Every person who has a job should have to join a union.	1	2	3	4

Scoring procedure: Add up the numbers you circled and divide by 9 to get your average score.

Figure 10B

WHAT ARE YOUR OPINIONS ABOUT LABOR UNIONS?

Directions: For each statement, circle the number in the column that best describes your reaction.

	Strongly agree	Agree more than disagree	Disagree more than agree	Strongly disagree
1. Unions are not a valuable institution in our economic system	1	2	3	4
2. Public employee unions should be outlawed.	1	2	3	4
3. Union power is much too great and should be restricted by new federal legislation.	1	2	3	4
4. Most unions are corrupt.	1	2	3	4
5. No group of professional employees--doctors, lawyers, teachers--should have the right to strike.	1	2	3	4
6. Unions should not be allowed to participate in local, state, and national politics.	1	2	3	4
7. Students who are working part time should not be required to join a union.	1	2	3	4
8. A person should not have to join a union when he or she takes a job.	1	2	3	4
9. Unions decease efficiency on the job and reduce workers' interest in doing their job well.	1	2	3	4

Scoring procedure: Add up the numbers you circled and divide by 9 to get your average score.

Figure 11

SUMMARIES OF SURVEY RESULTS

Survey of Knowledge About Unions*

Question	No. of True Responses	No. of False Responses
1		
2		
3		
4		
5		
6		
7		
8		
9		
Totals:		

*The correct answer to each of these questions is "false."

Survey of Attitudes About Unions

	Numbers of Responses			
Statement	Strongly agree	Agree more than disagree	Disagree more than agree	Strongly disagree
1				
2				
3				
4				
5				
6				
7				
8				
9				
Totals:				

Model Building

In teaching economics we often ask students to understand models developed by economists; however, they seldom have experiences in building or working with models. We suggest that teachers provide opportunities for students to build their own models. For example, students might be asked to expand the circular-flow model discussed in Section I (see Figure 4) to include the banking system or government. Another exciting model-building activity is to let the students design their own cybernetic systems by identifying problems they wish to solve and then working through the steps toward finding solutions.

As a beginning activity in model building, students might be asked to draw pictures of what they think the U.S. economy looks like. This could be a useful diagnostic activity for determining both what students know about economics and what, if anything, they know about model building and the logic that is involved.

5. CURRICULUM AND PERSONAL LIBRARY RESOURCES

Choosing Curriculum Resources

In preparing this volume we examined a variety of recently published curriculum materials, including several film series, designed to be used in economics education programs at all grade levels. Our aim was to assess each set of materials in three areas: technical quality, educational soundness, and content treatment. Our intent was to make some general recommendations for choosing economics materials that can be effectively used with students.

Our first observation was that the materials we examined are generally of high technical quality. The text materials have readable print and in most cases good graphics, and readability levels appear to be in line with student grade levels. The filmstrips convey their messages effectively, and many suggest some interesting teaching strategies in the accompanying teacher materials. The technical quality of the films, including those with animation, is very high, rivaling the quality of commercial television.

The educational-soundness category was a mixed bag. A number of high school economics texts are modeled after college-level texts. These texts rely primarily on reading and offer few challenging learning/teaching strategies. Generally, simulations and other supplementary materials (for example, readings, data banks, and filmstrips) offer more opportunities for students to deal with conceptual thought processes. In general, few suggested teaching strategies are included with films. Many programs for junior high school and older students include student evaluation measures.

We found a number of materials that seem to offer what we would consider to be sound content treatment. Generally, these materials are available through educational publishers that have been in the field for some time. Our major concern was with materials that suffer from various defects--especially defects that reflect some kind of bias, of either commission or omission. Many of the latter are nonprint materials produced and distributed with the support of a private-sector interest

group. We identified four types of bias: (1) deification of the market as the major solution to both economic and societal problems, (2) focus on some existing institutions (banks, manufacturers) to the exclusion of others (unions, cooperatives), (3) insufficient attention to current and recurring societal problems, and (4) lack of opportunity for students to address value positions. Thus, we offer five categories of questions that might be asked initially by any person who is in the process of selecting curriculum resources to be used with students:

1. Publisher. Who is the publisher? Does the publisher normally produce educational materials for use with students? Can a point of view be detected in the publisher's literature?

2. Balance. Are the materials balanced in terms of rationale or philosophy? Is the philosophic position of the materials made clear? What is the relative emphasis on the free-market mechanism as the major economic problem-solving mechanism in society?

3. Student Opportunity. What opportunities are presented in the materials for students to clarify their own values, analyze the values of others, and make and defend decisions?

4. Problems. To what degree do the materials acknowledge such societal issues as education, health, housing, and employment? How are students asked to address such issues, if they are presented?

5. Perspective. Is the perspective of the materials local, national, or international? Are interrelationships shown between the three perspectives?

These categories of questions, of course, do not consider student objectives, the ways in which objectives are linked to content, teaching strategies, the conditions under which the materials will be taught, or the extent to which the materials were tested before publication. However, these preliminary questions can help educators decide whether a given set of materials is congruent with their general teaching philosophy and view of economics education, after which a more-thorough analysis can be undertaken.

Understanding the field of economics is more difficult than ever, as we discussed in Part 2. To help alleviate this problem we have identified 15 books in the next section that could form the basis of a personal library in economics. We have purposely chosen books that repre-

sent the variety of philosophic positions in the field.

Selecting a Personal Economics Library

The 15 books described in the remainder of this section might form the basis for a teacher's personal library of economics resources. A variety of philosophic positions are represented. The first two are texts that represent encyclopedic references useful for looking up answers to specific questions. The others are classics or contemporary best-sellers that reflect a wide range of viewpoints about current economic problems and outline alternatives to mainstream principles of economics.

Samuelson, Paul A. Economics, 11th ed. New York: McGraw-Hill, 1980.

This is probably the most widely used standard economics text in American colleges and universities today.

Hunt, E.K., and Howard Sherman. Economics: An Introduction to Traditional and Radical Views, 4th ed. New York: Harper and Row, 1981.

This comprehensive introduction to economics from a Marxist perspective contains a long introductory section on the economic history of capitalist development, with thorough descriptions of current institutional arrangements. It covers micro and macro economics from the traditional theoretical perspective but focuses on the problems of advanced capitalism: poverty, unemployment, and inflation. A solid section on socialist economic systems is included.

Heilbroner, Robert L. The Making of Economic Society, 5th ed. Englewood Cliffs, N.J.: Prentice-Hall, 1975.

Heilbroner's highly readable book is a fascinating presentation of how economic societies have developed.

Edwards, Richard, Michael Reich, and Thomas Weisskopf. The Capitalist System: A Radical Analysis of American Society. Englewood Cliffs, N.J.: Prentice-Hall, 1972.

Articles on theory, contemporary economic problems, and alternatives to capitalism are included here in one of the more widely used books written from a left perspective, one that covers that point of view comprehensively.

Gilder, George. Wealth and Poverty. New York: Basic Books, 1981.

Written for the lay person, this best-seller documents the social, political, and economic grounding of supply-side economics--the new name for an old policy prescription calling for freeing business from government interference. Gilder describes how misguided liberal, Keynesian policy has undermined the true source of wealth, which is to be found in the creativity, technical adventure, and motivation flowing from free

enterprise. He demonstrates how attempts to redistribute income to the poor further victimizes them, keeping them in poverty.

Friedman, Milton, and Rose Friedman. Free to Choose: A Personal Statement. New York: Avon, 1979.

This spinoff from an earlier book by Milton Friedman, Capitalism and Freedom, and the television series Free to Choose is a less abstract and more fully developed treatment of the philosophy that permeates the earlier book. This philosophy is influenced by the fresh approach to political science articulated by Anthony Downs, James Buchanan, Gary Becker, Gordon Tullock, and others, in which the political and economic systems are seen symmetrically as markets whose outcomes are determined by interactions among persons pursuing self-interests.

Thurow, Lester C. The Zero-Sum Society: Distribution and Possibilities for Economic Change. New York: Basic Books, 1980.

Thurow offers a liberal counterpart to the two preceding books in his analysis of the economic and political woes facing the United States in the 1980s. He contends that the U.S. economy is like a zero-sum game: in our political system, every economic decision produces losers as well as winners. He implies that the era of continuous growth is at an end, arguing that solutions to the problems of energy shortages, environmental pollution, lagging production, rampant inflation, growing unemployment, and proliferating government regulations lie in such radical changes as federally funded work programs, changes in the tax structure, and the repeal of antitrust laws.

Galbraith, John Kenneth. Economics and the Public Purpose. Boston: Houghton Mifflin, 1973.

Galbraith describes contemporary capitalism in terms of two decidedly different but interdependent sectors: the competitive economy of small business and the planned economy dominated by large corporations. This book continues Galbraith's analysis of contemporary industrialized market economies, in which he points out how far we have strayed from the model of perfect competition--not by accident but as a result of technological development and changing competitive conditions.

O'Connor, James. The Fiscal Crisis of the State. New York: St. Martins Press, 1973.

O'Connor, a Marxist economist, develops an argument similar to Galbraith's in describing the U.S. economy in terms of interrelated sectors: the competitive sector, the monopoly sector, and the government-dominated sector, in which the govenment is the major buyer. His analysis outlines the impact of this structure on labor markets and on the demands made on government (the state) to promote capital accumulation through social investment and to reproduce class relations through such social insurance programs as welfare, health, and education. He argues that pressure on the federal budget is the basis for the current fiscal crisis, reflected in the taxpayers' revolt and the growing popularity of politicians who promise to reduce public spending and balance budgets.

Magdoff, Harry, and Paul M. Sweezy. The Deepening Crisis of U.S. Capitalism. New York: Monthly Review Press, 1981.

This book presents a Marxist analysis of the current macroeconomic problems in the United States and the world. According to the authors, "the path of U.S. economic development described in the essays of this book has led to a constant narrowing of options. The measures adopted to cope with stagnation and to avoid a major depression have increased inflation, dependent debt, speculation, and financial instability. . . . Faced with this menacing situation, the powers that be tend to grasp at straws, seeking miracle cures, fleeing forward into foreign adventures, and looking to safeguard their profits by taking it out of the hide of the working class, the poor and the old."

Myrdal, Gunnar. Against the Stream: Critical Essays on Economics. New York: Vintage, 1975.

In this compilation of essays, the renowned Swedish economist comments on the whole range of contemporary problems from his own profoundly wise and whole-world perspective.

Eichner, Alfred, ed. A Guide to Post-Keynesian Economics. White Plains, N.Y.: M.E. Sharpe, 1978.

"Post-Keynesian economics" is the term which refers to a competing paradigm which has developed over the past 15 years as a substitute for the mainstream economics exemplified by Paul Samuelson's famous text. Post-Keynesians criticise Samuelson's synthesis of Keynesian and neo-classical economics. They are concerned with developing a theory that explains persistent contemporary problems as part of capitalist development, and in this they take their inspiration from the classical 19th-century economic theory of David Ricardo and its 20th-century extension by Keynes. The post-Keynesians recognize the decline of the market economy, and they believe that it is necessary to develop a theory which explains the problems of capitalism in order to solve them. This series of essays was written for the intelligent layperson.

Heilbroner, Robert. Marxism: For and Against. New York: W.W. Norton, n.d.

Heilbroner, who considers Marxism to be the "necessary philosophy of our time," contends that we cannot escape Marxism because even if we reject Marx's specific conclusions we all use the method of analysis he invented. This is a lucid introduction to complex ideas, presented without jargon. Heilbroner introduces the reader to the method of dialectics, to the materialist interpretation of history, to Marx's analysis of capitalism, and to his views on the major problem of Marxism: its responsibility for Stalinism and for the excesses of Soviet-style socialism. This is an important book because Marxist economics is one of the several alternative approaches to mainstream economics which is gaining intellectual credibility.

Schumacher, E.F. Small Is Beautiful. New York: Harper and Row, 1973.

This book was written by an economist trained in orthodoxy. It is a deliberate attempt to subvert economic science by calling orthodox assumptions into question. Examining both the cultures of Third World countries and non-Western thought, Schumacher questions the philosophy of materialism and suggests a different order of priorities in order to begin to deal with the current and potential technological, scientific,

and social problems of this and the next century.

Silk, Leonard. Economics in Plain English. New York: Simon and Schuster, 1978.

Silk's highly readable book discusses the philosophical bases of the economics discipline and how economists go about their work. Relationships between economic science and human values are examined, along with problems related to day-to-day reality and economic thought.

6. ORGANIZATIONAL AND PERIODICAL RESOURCES

During the past decade, the teaching of economics has grown considerably in our nation's schools. In part this trend is due to increasing interest in the subject matter. It is also due in part to state mandates that require the teaching of some kind of economics.

A number of organizations, most notably the Joint Council on Economic Education, have long been in the business of helping teachers and curriculum leaders improve the teaching of economics. Other organizations, among them the Consumer Education Resource Network, are relatively new. Still others--for example, the Heritage Foundation and the Institute for Policy Studies--have particular points of view on the economy and on the discipline of economics. In preparing the following lists of organizations and periodicals, we have tried to include a representative sample of the variety of organizations involved with economic education. Many of these organizations produce publications that can be used by teachers and/or students as classroom resources.

Organizations

AMERICAN FEDERATION OF LABOR/CONGRESS OF INDUSTRIAL ORGANIZATIONS (AFL/CIO)
815 16th St. NW
Washington, DC 20006

The AFL/CIO will respond to written requests for specific kinds of information. A publications list and film catalog are also available on request.

BUSINESS ROUNDTABLE
200 Park Ave., Suite 2222
New York, NY 10017
(212) 682-6370

The membership of the Business Roundtable is made up of major U.S. corporations, represented by their chief executive officers. Members examine public issues that affect the economy and develop positions that seek to reflect sound economic and social principles. In addition to the monthly Roundtable Report, the Business Roundtable publishes position papers on public issues which may be interesting and useful to secondary-level teachers and students.

COMMITTEE FOR ECONOMIC DEVELOPMENT (CED)
477 Madison Ave.
New York, NY 10022
(212) 688-2063

This nonpartisan group of business leaders and scholars conducts research and formulates policy recommendations on major economic issues. Audiovisual and print materials appropriate for use in high school and college classrooms are produced by CED, in addition to an annual report and newsletter. A brochure describing CED's services and publications is available on request.

CONSUMER EDUCATION RESOURCE NETWORK (CERN)
1555 Wilson Blvd., Suite 600
Roslyn, VA 22209
(800) 336-0223

The major purpose of this network is to facilitate the exchange of information and ideas among consumer educators. In addition to a free reference and referral service, CERN will assist in all aspects of planning and delivering a consumer education program. Bibliographies and a bimonthly newsletter, Concerns, are available at no charge.

ERIC CLEARINGHOUSE FOR SOCIAL STUDIES/SOCIAL SCIENCE EDUCATION
(ERIC/ChESS)
855 Broadway
Boulder, CO 80302
(303) 492-8434

One of 16 clearinghouses in the ERIC system, a division of the National Institute of Education, ERIC/ChESS is responsible for collecting, summarizing, and indexing documents and journal articles related to social studies and social science education. Many of these materials are related to economic education. ERIC documents are available on microfiche at hundreds of libraries all over the United States. For a list of these libraries, and for descriptions of the free materials produced by ERIC/ChESS, write to the clearinghouse. ERIC/ChESS will conduct custom computer searches of ERIC and other data bases at cost ($25.00 each for ERIC searches); duplicate printouts of ERIC searches are available for $10.00.

FEDERAL RESERVE BANKS

The 12 banks in the Federal Reserve system carry on an active educational program. They publish free monthly reviews of economic conditions which often contain useful regional economic data, and several of these banks produce print and nonprint materials specifically designed to be used by and with high school and college students. Contact the nearest individual bank for a list of products; their locations and zip codes, as well as cities where branch offices are located, are listed on the following page.

Main Office	Zip Code	Branch Banks
Atlanta	30301	Birmingham, Jacksonville, Nashville, New Orleans
Boston	02106	
Chicago	60690	Detroit
Cleveland	44101	Cincinnati, Pittsburgh
Dallas	75222	El Paso, Houston, San Antonio
Kansas City	64198	Denver, Oklahoma City, Omaha
Minneapolis	55480	Helena
New York City	10045	Buffalo
Philadelphia	19105	
Richmond	23219	Baltimore, Charlotte
San Francisco	94120	Los Angeles, Portland, Salt Lake City, Seattle
St. Louis	63166	Little Rock, Louisville, Memphis

GLOBAL PERSPECTIVES IN EDUCATION (GPE)
218 E. 18th St.
New York, NY 10003
(212) 475-0850

This organization works to help schools prepare students to deal with the complexities and challenges of life in an interrelated world. Professional development and institutional support are encouraged through inservice and preservice training programs. In addition to K-12 instructional materials, GPE publishes a newsletter (six times a year) and a journal, Intercom (quarterly).

HERITAGE FOUNDATION
513 C St. NE
Washington, DC 20002
(202) 546-4400

This private foundation with a conservative perspective is interested in domestic and foreign public policy. Its major purpose is to provide information about policy issues. Some publications deal with economic issues and can be used with senior high school students; a list is available on request. A newsletter, Communique (eight times a year), is also available free on request.

JOINT COUNCIL ON ECONOMIC EDUCATION (JCEE)
1212 Ave. of the Americas
New York, NY 10036
(212) 582-5150

The goal of this private not-for-profit organization is to encourage, coordinate, and serve economic education at all levels. State JCEE councils exist in all states except Vermont. The JCEE provides consultant services, workshops, and a free information service. Periodicals include Progress in Economic Education (five times a year), Curriculum Perspectives (three times a year), College and University Newsletter (twice a year), and Update (quarterly). The JCEE's Checklist of Economic Education Materials for Teachers is especially useful for identifying classroom resources. Of particular interest to program planners is a series of master curriculum guides for teaching economics at various levels and in different content areas.

SOCIAL SCIENCE EDUCATION CONSORTIUM (SSEC)
855 Broadway
Boulder, CO 80302
(303) 492-8154

The SSEC is a not-for-profit corporation concerned with improving the teaching of social studies and the social sciences at all levels. One of its major concerns is the evaluation of new curricula and the dissemination of information about materials and teaching strategies. Some SSEC publications are focused specifically on economics, particularly consumer economics. The annual Data Book of Social Studies Materials and Resources is a useful buyer's guide to new curriculum materials. A free catalog describing publications and resources is available on request.

UNESCO ASSOCIATION OF THE USA
1418 Lakeside Dr.
Oakland, CA 94612
(415) 835-2811

UNESCO offers many publications dealing with economics which are of interest to secondary-level teachers and students. Write for a free publications list.

U.S. CHAMBER OF COMMERCE
3400 W. 66th St., Suite 300
Minneapolis, MN 55435
(612) 925-2400

A kit designed specifically for use with high school students, Economics for Young Americans, is available from the U.S. Chamber of Commerce along with pamphlets on economic issues which may be used by students. Write for a list of publications.

U.S. DEPARTMENT OF LABOR, BUREAU OF LABOR STATISTICS

The eight regional offices of the Bureau of Labor Statistics can provide various kinds of information, publications, and services. Monthly announcements of publications are available on request; contact

the nearest office for more information. Addresses and phone numbers of the regional offices are listed below.

Region(s)	Address/Phone Number
1	JFK Federal Bldg., Rm. 1603 Government Center Boston, MA 02203 (617) 223-6727
2	1515 Broadway New York, NY 10036 (212) 944-3121
3	P.O. Box 1339 Philadelphia, PA 19101 (215) 596-1155
4	1371 Peachtree St. NE Atlanta, GA 30367 (404) 881-4416
5	230 S. Dearborn, 9th Flr. Chicago, IL 60604 (312) 353-1880
6	555 Griffin Square Bldg. Dallas, TX 75202 (214) 767-6970
7, 8	911 Walnut St., Rm. 1500 Kansas City, MO 64106 (816) 374-2378
9, 10	450 Golden Gate Ave. Box 36017 San Francisco, CA 94102 (415) 556-4678

U.S. GOVERNMENT PRINTING OFFICE (GPO)
Washington, DC 20402

Most print materials produced for sale by various agencies of the federal government are available from the GPO. Some of these materials offer useful information for students and teachers, and because they are in the public domain they can be reproduced at will without permission. To receive announcements of new publications in areas related to economic education, write to the Superintendent of Documents at the address above.

Periodicals

BUSINESS WEEK
McGraw-Hill
1221 Ave. of the Americas
New York, NY 10020
$12.00/yr. (weekly)

DOLLARS AND SENSE
Economic Affairs Bureau
Union for Radical Political Economics
324 Somerville Ave.
Somervile, ME 02143
$7.50/yr. individuals, $15.00 institutions (monthly)

IN THESE TIMES
Institute for Policy Studies
1901 Q St. NW
Washington, DC 20009
$17.50/yr. (weekly)

LABOR NOTES
Labor Education and Research Project
P.O. Box 20001
Detroit, MI 48220
$7.50/yr. (monthly)

LIBERTARIAN FORUM
Box 341
Madison Square Station
New York, NY 10010
$8.00/yr. (monthly)

NATION, THE
Nation Associates
333 Sixth Ave.
New York, NY 10014
$21.00/yr. (weekly)

NATIONAL REVIEW, THE
150 E. 35th St.
New York, NY 10016
$19.00/yr. (biweekly; alternates with National Review Bulletin)

WALL STREET JOURNAL
Burnett Rd.
Chicopee, MA 01021
$77.00/yr.; special classroom rates available (daily except Saturdays, Sundays, and legal holidays)

7. RESOURCES IN THE ERIC SYSTEM

The ERIC (Educational Resources Information Center) data base, supported by the National Institute of Education, contains thousands of documents related to economic education. Those selected for inclusion here are representative of the wide range of ERIC resources available for use in meeting various kinds of educational needs. Because many of them are relevant to more than one of the five rationales for economic education presented in Section 2 and because it is often difficult to distinguish between resources applicable to the citizenship approach and those that primarily promote the free-enterprise system, we have organized the entries in this section into three categories: economic education--general, consumer/personal economics, and global/futures economics.

Each of the resources described in this annotated bibliography is identified by a six-digit accession number. Abstracts of and descriptive information about all of them, along with other economics-related resources in ERIC, are published in a cumulative index, Resources in Education (RIE). This information is also accessible through three major on-line computer searching systems: DIALOG, ORBIT, and BRS.

Most of these documents are available for viewing in microfiche (MF) at libraries that subscribe to the ERIC collection. Microfiche copies of these documents can also be purchased from ERIC Document Reproduction Service (EDRS). Paper copies (PC) of some documents may also be purchased from EDRS. Information about the availability of every document listed is included at the beginning of the abstract, along with a code indicating the prices for both microfiche and paper copy. (The order form at the end of this section contains a key to the price code along with other information about ordering copies from EDRS.) If a document is not available from EDRS, the source and price are provided.

Economic Education--General

Bibby, John F., et al. Analyzing Government Regulation: A Resource Guide. Economics/Political Science Series. New York: Joint Council on Economic Education, 1978. 97 pp. ED 173 255. EDRS price: MF01

plus postage. PC not available from EDRS; order from JCEE, 1212 Ave. of the Americas, New York, NY 10036 ($4.50).

Part of a series which offers educational resources and teaching techniques related to major social issues to high school social studies classroom teachers, the guide focuses on government regulation. The document is presented in four major chapters. Chapter 1 explores how economic and political science frameworks can be used to analyze policy issues. Chapter 2 presents an overview of the relationship between the economy and government regulation. Topics discussed include the economic rationale for regulation, control of natural monopolies, prevention of destructive competition, protection of sellers and consumers, regulatory processes, and evaluation of regulatory policy. Chapter 4 presents instructional activities which involve students in identifying and describing problems involving governmental regulatory action, class discussion, participating in small-group tasks, compiling master lists of alternative costs and benefits of various regulatory actions, preparing position papers, and analyzing films. For each activity, information is presented on grade level, sequence within the unit, time and material required, rationale, concepts, instructional objectives, teaching strategies, and pupil activities. Student readings, bibliographic suggestions, and illustrative material are included in the unit.

Hansen, W. Lee, et al. Master Curriculum Guide in Economics for the Nation's Schools. Part I, A Framework for Teaching Economics: Basic Concepts. New York: Joint Council on Economic Education, 1977. 53 pp. ED 148 648. EDRS price: MF01 plus postage. PC not available from EDRS; order from JCEE, 1212 Ave. of the Americas, New York, NY 10036 ($2.50).

A concise framework of basic concepts and generalizations for teaching economics for K-12 students is presented. The guide summarizes the basic structure and substance of economics and lists and describes economic concepts. Standard guidelines are provided to help school systems integrate economics into their ongoing courses of study. Designed to be used by those working with teachers on curriculum development in economic education, the guide can also be used by methods instructors. Six major areas are defined as essential to economic understanding. First, students need to develop an objective, rational approach and be able to organize their thinking as they address economic issues and questions. Second, students need to master basic economic concepts and understand economic institutions, measurement concepts, and concepts for evaluating economic action and policies. Third, students need a simple overview of the American economic system so as to provide a structure for examining specific issues. Fourth, students need to possess the knowledge and skills needed to recognize the various types of economic issues they are likely to encounter, such as market and government action. Fifth, students need to apply their economic understanding to particular issues relevant to their own lives, such as the scarcity of oil or the rising coffee prices. Sixth, students need to form their own judgments on economic issues on the basis of their analysis of the issues, tempered by their own values.

Lawrence, Sharon, et al. Between Inflation and Recession: A Literacy Unit on the American Economic System. Olympia: Office of the State

Superintendent of Public Instruction and Washington State Council on Economic Education, 1975. 97 pp. ED 124 479. EDRS price: MF01/PC04 plus postage.

This four-week unit on the American economic system for secondary students is intended to be a basic literacy unit in economics and to serve as a "sampler kit" demonstrating how economics can be taught interestingly, imaginatively, and with intellectual honesty. The unit's goals for students include the abilities to list the major characteristics of the American economy, apply basic economic analysis to current economic situations, list the basic economic tools used to stabilize the economy, and review present economic trends through a personal and societal perspective. Among the teaching methods suggested are brainstorming, creating models, simulations, short lectures, interviews, short readings, and case studies. The unit is composed of 12 activities. Student goals, class materials needed, specific teacher instructions, and questions with which to stimulate classroom discussion are provided for each activity. Also provided are pretests, posttests, quizzes, a test of basic economic concepts and their definitions, 18 expectations which are considered a minimum competency requirement in the achievement of economic literacy, and a bibliography of additional resource materials.

Leamer, Laurence E., et al. Analyzing Health Care Policy: A Resource Guide. Economics/Political Science Series. New York: Joint Council on Economic Education, 1977. 60 pp. ED 173 254. EDRS price: MF01 plus postage. PC not available from EDRS; order from JCEE, 1212 Ave. of the Americas, New York, NY 10036 ($3.50).

First in a series which offers educational resources and teaching techniques related to major social issues to high school social studies classroom teachers, the guide focuses on political and economic aspects of health care in the United States. The document is presented in four major chapters. Chapter 1 explores how economic and political science frameworks can be used to analyze policy issues. Chapter 2 presents an overview of health care in the United States. Topics discussed include costs, availability of services, advantages of private and public health care, policy choices, and health care insurance rates. Chapter 3 outlines objectives for the health care unit. Chapter 4 presents instructional activities which involve students in defining terms, comparing data, discussing issues in groups and in class, analyzing insurance rates, analyzing filmstrips, role playing, and answering questions based on reading assignments. For each activity, information is presented on grade level, sequence within the unit, time and material required, rationale, concepts, instructional objectives, teaching strategies, and pupil activities.

O'Neill, James B. The Market System: Does It Work? Princeton: Educational Services Bureau, Dow Jones and Co., 1975. 71 pp. ED 117 023. EDRS price: MF01 plus postage. PC not available from EDRS; order from Dow Jones and Co., P.O. Box 300, Princeton, NJ 08540 ($1.95; minimum order 10 copies).

Included in this student book are a variety of learning activities for secondary students which will aid their understanding of the United States economic system. Basic concepts are introduced which show how a market mechanism resolves the conflict between finite resources and

infinite desires, how supply and demand interact, and how competition among commodities and available reserves, as well as among prospective purchasers, influences pricing. Students are exposed to these concepts on a personal level, helping them to answer the following kinds of questions: (1) What kind of car should I buy considering the energy crisis? (2) Should I go to college or to work after high school graduation? (3) What summer jobs are available? Following an introduction which defines and introduces the market system, activity chapters focus on consumerism, money problems, scarcity of natural resources, distribution of goods, supply and demand, getting enough gasoline, the case for rationing, motorcycles and public safety, and future fear. Although there is some variation, most lessons begin with a newspaper article on one of these economic topics. Lists of difficult terminology and a number of questions follow to help students comprehend what they read in the article.

O'Neill, James B. The Market System: Does It Work? Teacher's Edition. Princeton: Educational Services Bureau, Dow Jones and Co., 1975. 91 pp. ED 117 024. EDRS price: MF01 plus postage. PC not available from EDRS; order from Dow Jones and Co., P.O. Box 300, Princeton, NJ 08540 ($2.95).

This book, the teacher's guide for the student resource described above, presents objectives, concepts, procedures, and evaluation for completing the unit. The materials are arranged so that the earliest lessons deal with the most basic concepts and later lessons introduce variations and complexities of the major concepts. Chapter titles correspond to the student version of the materials.

O'Neill, James B. Master Curriculum Guide in Economics for the Nation's Schools. Part II, Strategies for Teaching Economics: World Studies (Secondary). New York: Joint Council on Economic Education, 1980. 117 pp. ED 188 979. EDRS price: MF01 plus postage. PC not available from EDRS; order from JCEE, 1212 Ave. of the Americas, New York, NY 10036 ($5.00).

This guide presents concept-based activities in economics for use with students in grades 9 through 12. The activities are related to global aspects of economic development. The objective is to provide detailed classroom lessons illustrating ways of applying economic analysis to world history and to the contemporary world scene. The 11 concept-based lessons can be modified for use in existing curriculum. They are designed to help students understand basic economic problems with which every economic system must contend. Sample lessons are entitled "A Primitive Economy," "The Game of Scarcity and Allocation," "Patterns of Economic Development," "Limits to Growth," and "Using Economic Data to Compare Types of Economic Systems." Activities involve students in map and globe work, filling in worksheets, class discussion, reading assignments, analyzing case studies, and writing brief essays. For each lesson, information is presented on time required, major and related concepts, objectives, rationale, material, procedure, and evaluation. An annotated list of other resources concludes the document.

Swartz, Thomas R. Analyzing Tax Policy: A Resource Guide. Economics/Political Science Series. New York: Joint Council on Economic

Education, 1979. 107 pp. ED 173 257. EDRS price: MF01 plus postage. PC not available from EDRS; order from JCEE, 1212 Ave. of the Americas, New York, NY 10036 ($4.50).

Part of a series which offers educational resources and teaching techniques related to major social issues to high school social studies classroom teachers, the guide focuses on political and economic aspects in three major chapters. Chapter 1 explores how economic and political science frameworks can be used to analyze policy issues. Chapter 2 presents an overview of taxation in the United States. Topics discussed include the role of taxes in the United States economy, the nature of tax authority, economic bases for taxation, and criteria used in evaluating the worth of a tax. Chapter 3 outlines objectives for the tax policy unit, including that students should be able to define and evaluate various kinds of taxes, make informed decisions about reforms, and understand the values involved in tax policies and various tax issues. This chapter also presents instructional activities which involve students in defining terms, identifying and classifying taxes, discussing and analyzing issues in groups and in the class, working problem sheets, and role playing. For each activity, information is presented on recommended use, sequence within the unit, time and materials required, rationale, concepts, instructional objectives, teaching strategies, and pupil activities.

Teacher's Guide to the Economy and Business Organizations, A. Madison: Wisconsin Department of Public Instruction, Social Studies Curriculum Study Committee, 1977. 196 pp. ED 170 232. EDRS price: MF01/PC08 plus postage. Also available from Wisconsin Department of Public Instruction, 126 Langdon St., Madison, WI 53702 ($2.00).

To increase economic literacy among students in grades 8-12, the guide offers activities, discussion questions, background information, and explanation of economic concepts. The document is presented in three sections. Section 1 examines the economic framework of the United States. Topics discussed include economic problems, making economic decisions, economic system development, production, income distribution, and economic exchange. Section 2 focuses on the four major types of nongovernment business organizations--proprietorship, partnership, investor-owned profit corporation, and user-owned cooperative corporation. For each type of organization, information is presented on major points, performance expectations, important concepts, and comparison with other types of organizations. Section 3 traces cooperative enterprises in agriculture and business--particularly in the fields of housing and health care. Information is presented on the principles of cooperatives, how cooperatives work, control, success factors, and buying power of cooperatives. Each of the three sections outlines the major points about each concept discussed and recommends additional teacher material, student material, student activities, and discussion questions and answers. A glossary of terms is also provided. Student activities include analyzing newspaper articles, charting sectors of the business economy, answering brief questions about the free-enterprise system, analyzing local business enterprises, arranging speaking engagements by community business leaders, and forming a cooperative to purchase school supplies.

Williams, Elmer D., et al., eds. Creative Activities in Economics for Middle School Students. Atlanta: Georgia Council on Economic Education; Athens, Ga.: University of Georgia, Center for Economic Education, 1978. 176 pp. ED 179 438. EDRS price: MF01 plus postage. PC not available from EDRS; order from Center for Economic Education, University of Georgia, 204 Dudley Hall, Athens, GA 30602 ($2.25).

This learning package presents 15 lessons on principles of economics for use by junior high school social studies classroom teachers as they develop economic education programs. The activities are keyed to the economic education color television/film series Trade-Offs, developed jointly in 1978 by the Agency for Instructional Television, the Canadian Foundation for Economic Education, and the Joint Council on Economic Education. Major objectives of the lessons are to give teachers a wider range of activities from which to choose, to facilitate individualized and independent learning, to provide experiential activities, and to develop and reinforce economic vocabulary. Lesson topics focus on economic choice, factors involved in decision making, earning power, income, selling techniques, and costs and benefits. Activities involve students in class discussion, cutting out pictures and comparing prices of desired items from catalogs, creating charts and graphs, participating in simulation and other games, learning vocabulary terms, filling in blanks, solving word puzzles, making bulletin boards, and playing word games. For each lesson, information is presented on behavioral objectives, vocabulary, learning activities, and follow-up activities. The materials also include written and/or pictorial descriptions of learning centers for individual and small-group projects.

Wilson, Cathy R., and Mark C. Schug. A Guide to Games and Simulations for Teaching Economics, 3rd ed. New York: Joint Council on Economic Education, 1979. 91 pp. ED 180 873. EDRS price: MF01 plus postage. PC not available from EDRS; order from JCEE, 1212 Ave. of the Americas, New York, NY 10036 ($2.00).

The document provides an annotated list of 130 games and simulations for elementary and secondary economics courses, outlines procedures for using games, and reviews research studies on social science games and simulations. It is presented in five chapters. Chapter 1 lists selection criteria. Chapter 2 discusses constructing, selecting, and using games in the classroom and provides a bibliography on the subject. Chapter 3 summarizes findings in current research on instructional games in economics and the social sciences. Chapter 4 contains an annotated list of currently available simulations and games. Each entry provides title and source, subject matter, grade level, approximate playing time, cost, number of participants needed, and a description of procedures and objectives. Chapter 5 lists other appropriate games and simulations, bibliographies, and journals. Addresses of publishers and distributors are included.

World Economy and Multinational Corporations, The: An Activity Program for Grades 9 Through 12. Peoria: Caterpillar Tractor Co. 32 pp. ED 195 481. EDRS price: MF01/PC02 plus postage.

This booklet for secondary students contains background information and activities about the multinational corporation (MNC). The major goal of the booklet is to impart an understanding of the economic concepts underlying the world economy and the activities of multinational business enterprises. Brief reading selections provide students with information on world trade, history of MNCs, the economics of MNCs, and some issues raised by MNCs. Following the readings, students compile a list of commodities that the United States must import from other countries and prepare exhibits, bulletin boards, and/or reports describing the origins of these products and their uses in the United States. In another activity, students log all the products advertised on a TV station within a certain time and determine how many of them are made by MNCs. Students also participate in role playing, panels, large and small group discussions, and independent research. Pretests and posttests are included.

Consumer/Personal Economics

Bannister, Rosella. Inflation: Consumers Counter the Cost of Living. A Consumer Education Curriculum Module for Grades 10-14. Ypsilanti, Mich.: Consumer Education Center, Eastern Michigan University, 1980. 114 pp. ED 200 475. EDRS price: MF01/PC05 plus postage.

This publication suggests classroom activities and resources on inflation for use in secondary and adult/community education. Objectives are to enable students to identify and analyze varying points of view and policy proposals on inflation, apply the decision-making process to various alternatives regarding inflation, and achieve a broader understanding of the options available to consumers as they participate to influence change regarding the inflation problem. For each topic related to inflation, the following are provided: an objective, suggested learning activities, classroom materials needed, teacher resources, and suggested evaluation procedures. Although student worksheets are provided for many of the activities, additional materials are required for some of the activities. The activities in which the students are involved are many and varied. Pretests and posttests, a glossary of terms, and an index of organizations are included. An annotated bibliography cites materials representing a variety of points of view regarding inflation. Books, journal articles, pamphlets and reports, films, videocassettes and filmstrips, and simulations are cited. The publication concludes with several position papers on inflation.

Blumengarten, Jerry. Survival Skills for Students. New York: Open Doors, 1977. 65 pp. ED 154 102. EDRS price: MF01/PC03 plus postage.

This manual is addressed to providing high school students with daily living skills they will need in modern urban settings. Individual lesson plans for teachers are accompanied by simply worded instructional materials. Students are presented with problem-solving exercises in such areas as self-awareness; communication; money, income, and work; consumerism; and making use of transportation and other resources, particularly in New York City.

Consumer and Economic Education Guidelines. Indianapolis: Indiana Project for Consumer and Economic Education, 1979. 109 pp. ED 167 433. EDRS price: MF01/PC05 plus postage.

This document identifies goals, rationale, key concepts, general teaching ideas, and resource materials for teaching consumer and economic education. The document is intended to provide guidelines for elementary, secondary, and adult education programs which emphasize (1) understanding of the relationships between economic, political, and social systems and the individual, (2) acquisition of management and decision-making skills, and (3) understanding of the rights of individuals as consumers, producers, and citizens. The guide is presented in three major parts. Part 1, an introduction, gives a rationale for consumer and economic education programs, presents a model for decision making, and explains the goals and content of consumer and economic education programs at elementary, secondary, and adult levels. Part 2, the bulk of the document, offers frameworks for teaching such specific concepts as scarcity, the market system, credit, consumer demand, savings and investment, and financial security. For each concept the framework outlines learning goals, teaching ideas, and general resource materials. The frameworks do not specify activities or resources by grade level. Part 3, an appendix, contains a glossary of terms and a short curriculum unit outline.

Consumer Education: It's a Basic. NASSP Curriculum Report 9, no. 4. Reston, Va.: National Association of Secondary School Principals, 1980. 13 pp. ED 187 634. EDRS price: MF01. PC not available from EDRS; order from NASSP, 1904 Association Drive, Reston, VA 22091 ($0.50).

The report discusses and defines consumer education for high school students, describes various consumer education school programs, annotates available sources and resources, and notes several issues needing attention. Consumer education is defined as an effort to prepare students for participation in the marketplace by imparting the understandings, attitudes, and skills which will enable them to make rational and intelligent decisions. The purpose is to help students deal effectively with their contemporary problems and to prepare them to cope with the problems they will meet in the years ahead. Four broad content areas are included: consumer decision making, economics, personal finance, and rights and responsibilities. The report notes the increasingly important role of consumer education in the schools and describes high school programs from various states. It also briefly lists teaching strategies and learning activities and describes teacher sources and resources. Consumer education issues still to be resolved include a need for cooperative curriculum planning, a need to identify basic competencies, a need to keep a balanced view of the consumer vs. the producer, and a need to reach beyond just buying and selling into more-abstract aspects of consumer education.

Consumer in the Marketplace: An Interdisciplinary Approach to Consumer Education Developed for Grades 5-8. Pittsburgh: Allegheny Intermediate Unit, 1978. 244 pp. ED 164 388. EDRS price: MF01. PC not available from EDRS; order from Project ICE, Allegheny Intermediate Unit, Suite 1300, Two Allegheny Center, Pittsburgh, PA

15212 (free; supply limited).

This manual identifies activities and resources for infusing consumer education into English, social studies, science, mathematics, and home-economics courses in grades 5 through 8. The activities are intended to help students recognize their rights and responsibilities as consumers in our society and make intelligent decisions in light of their personal and economic value systems. The suggested activities are based on four concepts: (1) basic economics of the marketplace, (2) legal rights, redress, and consumer law, (3) major purchases of products and services, and (4) such special problems as advertising and product safety. The manual begins by listing consumer education competencies within each of these concept areas. The bulk of the manual is divided into five sections according to subject area. Within each section, competencies, classroom activities, resources, and performance indicators are listed for the various concepts. The activities are many and varied. Students view filmstrips, read and discuss books, write plays, role-play scenes involving different buyer/seller situations, demonstrate the use of table saws and other tools, use charts and graphs to show monthly expenditures, and design and conduct a survey about shoplifting. The manual concludes with bibliographies of print and nonprint student materials and free materials for educators.

Consumer Product Safety: What's It All About? Teacher's Guide. Washington, D.C.: Consumer Product Safety Commission, 1979. 25 pp. ED 177 100. EDRS price: MF01/PC01 plus postage. Also available from Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402 ($1.00).

Designed as a flexible resource, this material may be used independently or in conjunction with existing safety, health, consumer education, economics, or social studies units. To facilitate the incorporation of product safety information into the curriculum, the suggested activities section lists major concepts to be developed and indicates related interdisciplinary skills. Each unit contains a list of learning objectives, a teacher's guide, a consumer product safety vocabulary list, suggested activities, including safety-oriented crossword puzzles, and a list of resources. Area office listings for the Consumer Product Safety Commission are included. The material is intended for grades 4-6.

Finch, Alton V., comp. Career Education in Business Education: Classroom Teachers Handbook. Reston, Va.: National Business Education Association, 1980. 198 pp. ED 187 856. EDRS price: MF01/PC08 plus postage. Also available from NBEA, 1906 Association Drive, Reston, VA 22091 ($9.50).

This handbook contains samples of instructional materials for teaching career education concepts in the business classroom--lesson plans, factual information, games, and exercises. While many of the examples are in a form readily usable by students, other examples have been edited or condensed to fit the handbook format. All original sources are given in the table of contents and include mailing addresses for the materials. Unit 1 provides an introduction. Units 2 and 3 contain materials pertinent to (1) the philosophy, goals, and objectives of career education and (2) career education and the teaching/learning process. Instruc-

tional materials relating to career education concepts are found in Unit 4, which is divided into six sections: occupational information (including information about 56 business occupations), job getting and maintaining, career decision making, values and self-appraisal, personal traits and human relationships, and economic awareness. Unit 5 is an annotated bibliography that describes both the original sources of the materials and other sources of career education materials. Materials are classified as local, state, and national education agencies; annotated periodicals; other periodicals; theses; and commercial books and other curriculum materials. An appendix gives the mailing addresses of the state coordinators of career education.

Finn, Peter, et al. Transportation Consumer Education Curriculum Guide. Cambridge, Mass.: Abt Associates, 1977. 362 pp. ED 147 588. EDRS price: MF01/PC15 plus postage.

Materials in this curriculum guide represent a selection of the major transportation consumer topics and ideas and are designed to set the stage for more-intensive transportation consumer education curriculum development and teacher efforts. (Eleven manuals covering the four transportation topics of public transportation, transportation and the environment, transportation safety, and bicycles for elementary, secondary, and adult levels are available separately and may be used in conjunction with this curriculum guide or independently of it.) The guide consists of three major sections: introduction, curriculum units, and resources. The introduction presents rationale for developing transportation consumer education curricula and conceptualizes the complex field of use and purchase of transportation goods and services. A series of 20 units on key transportation consumer education topics are presented. Each contains rationale, activities index (objectives, suggested classroom activities, and suggested teaching methods), and a bibliography of teacher, student, and audiovisual materials. The resources section contains instructions for developing transportation consumer education curriculum units, discussion of appropriate teaching methods, a cross-reference of transportation topics and other subject areas, and miscellaneous bibliographies.

How to Buy Food: Lesson Aids for Teachers, rev. ed. Agriculture Handbook no. 443. Washington, D.C.: Agricultural Marketing Services, U.S. Department of Agriculture, 1975. 55 pp. ED 170 548. EDRS price: MF01/PC03 plus postage. Also available from Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402 ($1.30).

This teacher's guide presents lesson aids on how to buy food for home economics or consumer education in high school or adult education courses. An introductory section describes the contents and objectives of the supplementary materials (publications, films, and slides/filmstrips) and provides suggestions for lesson preparation and background materials for the instructor. The topics of the lessons are meat, dairy products, eggs, poultry, fresh fruits and vegetables, canned and frozen fruits and vegetables, and how to get more for your money. Each of these lessons contains a list of objectives and materials to use, suggestions for teaching, a glossary, and quizzes.

How to Save Money by Using Less Electricity, Natural Gas, and Water: A Do-It-Yourself Guide. Publication 228. Berkeley: Lawrence Berkeley Lab, University of California, 1979. 27 pp. ED 194 322. EDRS price: MF01/PC02 plus postage.

Presented are ways in which consumers can improve the energy efficiency of their homes and conserve water. Organized by types of energy use, the guide points out what to look for and what changes to consider as homeowners inspect heating and air-conditioning systems, the hot-water system, kitchen appliances, lighting, and water use. Conservation tips and estimated cost reductions are given for each appliance or system discussed.

John, Sadie, and Byron L. Chaplin, comps. A Teacher's Guide to Money Management. Pittsburgh: Consumer Credit Counseling Service of Western Pennsylvania. 68 pp. ED 127 225. EDRS price: MF01 plus postage. PC not available from EDRS; order from Educational Director, Consumer Credit Counseling Service, 1102 Arrott Bldg., 401 Wood St., Pittsburgh, PA 15222 ($1.50).

This educational booklet for secondary teachers contains readings, student activities, and selected resources on money management. The authors believe that preventive money management education can help students become tomorrow's wise consumers. Parts 1, 2, and 3 deal, respectively, with budgeting and money management, credit-consciousness, and shopping skills. Each part begins with a brief description of the topic, discussing course content and possible teaching methods, and then provides exercises, checklists, and tips on ways to stretch dollars in the various areas, all of which can be used or adapted for use with students. Part 4 contains suggested class activities--shopping sprees with play money, role-playing situations, class discussions on famous money quotes, completing unfinished sentences, and case studies. Part 5 cites selected resources for consumer/marketplace education including bibliographies, newsletters, periodicals, curriculum guides, brochures, textbooks, games, and audiovisuals. Handouts available from Consumer Credit Counseling are listed. A form which teachers can use to evaluate the booklet is also provided. The booklet is particularly useful to teachers just starting out who have not developed their own materials.

Keast, Anne C., and Gwendolyn I. Leth. Timely Teaching Tips: Financial Planning. Washington, D.C.: American Council of Life Insurance, 1979. 108 pp. ED 170 529. EDRS price: MF01/PC05 plus postage.

This handbook contains teaching ideas for personal and family financial-planning courses in senior high schools. Each concept includes the type of activity, an overview of the activity in the form of a generalization, student performance indicators, a plan for implementation, evaluation criteria, and a list of materials needed to conduct the activity. Many of the activities also include teacher references. Following is a list of the concepts with examples of activity areas: money management (life-insurance case problem, personal property inventory), purchase of goods and services (cost comparison, consumer awareness), consumer economics (increasing economic vocabulary, supply and demand and price-index record), and credit (shopping for credit, applying for a short-term loan).

Lungmus, Dorothy, et al. Consumer Education Sourcebook. Boulder, Colo.: Social Science Education Consortium and ERIC Clearinghouse for Social Studies/Social Science Education, 1980. 131 pp. ED 180 861. EDRS price: MF01/PC06 plus postage. Also available from SSEC Publications, 855 Broadway, Boulder, CO 80302 ($9.95).

An annotated list of currently available student and teacher resources for consumer education in grades K-12 is provided in this sourcebook. Section 1 describes student and teacher materials. Student materials include current (1976 or later) textbooks; supplementary print materials such as pamphlets, books, duplicating masters, transparencies, and workbooks; audiovisual materials; and games and simulations. The grade level, reading level, price, subject area, strategies and requirements for use, and consumer economics focus are provided for each entry. Categories for teacher materials are handbooks and sourcebooks which provide background information on consumer economics, curriculum guides for planning courses or programs, and a variety of materials indexed in ERIC. Section 2 lists local, state, and national consumer organizations and relevant periodicals. The Consumer Education Materials Analysis Instrument, a list of publishers, and a cross-reference index are included in appendices.

Spellman, Nancy Z. Bright Ideas for Consumer Educators. 1979. 22 pp. ED 178 383. EDRS price: MF01/PC01 plus postage.

This bibliography lists 56 K-adult multimedia materials related to various aspects of consumer education. The author's objective is to provide curriculum planners and educators with information about audiovisual aids for teaching consumer awareness and skill development to students of all ages. Materials annotated include cassettes, filmstrips, posters, charts, slides, films, ditto masters, videocassettes, and transparencies. Topics covered are the consumer and the economy, consumer protection, the metric system, consumer educator aids, bargain jargon, money management, financial services, health, investing, food, automobiles, insurance, houses, mathematics, and shoplifting. The entries are divided according to topic and then arranged alphabetically by title. Information is given concerning physical description, length, time allotment, publisher, price, rental price, preview availability, and grade level.

Wilcox, Suzanne Dale. Urban Consumer: A Community Newspaper. A Consumer Education Curriculum Module for Grades 7-8. New York: Center for Advanced Study in Education, City University of New York, 1980. 126 pp. ED 197 197. EDRS price: MF01/PC06 plus postage.

This consumer education module is designed to increase seventh- and eighth-grade urban students' awareness of what it means to be a consumer. The seven units in the module are intended to help students think of themselves as consumers, identify appropriate consumer behavior and the consumer viewpoint in some topical areas, and gather information and write about it in a regular newspaper for the community. An introductory section contains information on the development of these instructional materials. Unit 1 contains seven activities on appropriate consumer behavior. The second unit provides activities to help students learn more about their local area as a place where consumers live and function. The skills required to start and run a community newspaper are covered

in the four activities of unit 3. Two activities designed to help students write about the consumer interest are presented in the fourth unit. Units 5-7 contain a total of 14 activities on consuming entertainment and medical services and supermarket shopping; activities include field trips, discussions, writing articles, and conducting interviews. Appendixes contain student compositions, an issue of a student newspaper, consumer-oriented articles, a health newsletter, and information on selecting a doctor.

Global/Futures Economics

Becker, James M. Education for a Global Society. Fastback Series, no. 28. Bloomington, Ind.: Phi Delta Kappa Educational Foundation, 1973. 42 pp. ED 085 900. Not available from EDRS; order from Phi Delta Kappa, Eighth and Union, Box 789, Bloomington, IN 47401 ($0.75).

A growing body of research literature suggests that significant relationships exist between the attitudes individuals develop toward their own and other societies and their images of international conflict and collaboration. The author of this booklet believes that unless students understand that many important differences in national behavior can be explained in terms of learned patterns of social behavior, ethnocentric tendencies may simply be reinforced. Efforts to understand Africa or Asia are likely to lead nowhere unless skill in analysis, knowledge of history, valuing, and experience as a basis for judging are provided. While none of these approaches is wrong, each taken by itself is inadequate. However, Becker sees some encouraging signs that may serve to strengthen these approaches and perhaps develop a more-comprehensive view of the earth and man. Among these approaches, peace studies, future studies, and development studies seem most promising at present. These and other promising approaches to global education are dicussed in this report.

Collier, Anne B. Energy in an Interdependent World: A Global Development Studies Case Study. Madison, N.J.: Global Development Studies Institute, 1979. 173 pp. ED 175 761. EDRS price: MF01/PC07 plus postage. Also available from Global Development Studies Institute, Millbrook School, Millbrook, NY 12545 ($5.00).

Part of the Global Development Studies Institute's series of model curricula, this guide presents strategies for teaching about energy as a global issue. The unit, intended for students in grades 11-14, is designed for one semester. The overall objective is to promote awareness of and responsibility toward the global community through an understanding of the complex and interdependent nature of global issues. The guide is organized into four parts. The first part introduces the energy issue, explaining why it is a global one. The second part presents scientific and historical background information, outlining reasons for the present crisis. The third part analyzes ecological, economic, political, and social elements of the issue. The fourth part explores technological and policy alternatives for the future, including conservation, fossil-fuel production, nucelar energy, solar energy, geothermal energy, hydro-

electric power, and various energy policies. Basic concepts and information are given for each topic, as well as suggestions for activities and discussion questions. Skill-development activities include researching, making surveys, using and analyzing statistics, writing reports, and making policy decisions. Content and skill objectives are listed in the introduction, and charts, graphs, figures, and reading lists are included in each chapter. A glossary and bibliography conclude the document.

Energy in the Global Marketplace, Grades 9, 10, 11: Interdisciplinary Student/Teacher Material in Energy, the Environment, and the Economy. Washington, D.C.: National Science Teachers Association, 1978. 54 pp. ED 157 819. EDRS price: MF01 plus postage. PC not available from EDRS; order from Technical Information Office, U.S. Department of Energy, P.O. Box 62, Oak Ridge, TN 37830 (free).

This instructional unit contains six classroom lessons in which 9th-, 10th-, or 11th-grade social studies students examine the effects of competition among nations and world regions as demand for oil outstrips supply. The overall objective is to help students understand the concept that energy is a commodity to be bought and sold like any other commodity but in a marketplace that is a global one. The lessons were written by teachers and can be integrated into social studies, economics, world history, contemporary issues, and world geography courses. The lessons are (1) "Why Some Nations Use More Energy," (2) "Energy: Who Has It; Who Needs It?," (3) "From Those Who Have to Those Who Want: The Oil Trade Routes," (4) "What If...Everyone Wants More?," (5) "Retrodollars: The Problem of Too Much Money," and (6) "The Oil Price Game--Everyone Plays" (a simulation of the world market for oil). The activities in which students are involved include analyzing maps, graphs, and charts; answering questions based on short reading selections; and playing games. Each lesson can be taught in one classroom period. All teachers and student materials are included.

Fitch, Robert M., and Cordell M. Svengalis. Futures Unlimited: Teaching About Worlds to Come. Bulletin no. 59. Washington, D.C.: National Council for the Social Studies, 1979. 94 pp. ED 174 539. EDRS price: MF01 plus postage. PC not available from EDRS; order from NCSS, 3615 Wisconsin Ave. NW, Washington, DC 20016 ($6.95).

A theoretical framework and suggestions for teaching about the future at the secondary level are presented. Chapter 1 examines the nature of and approach to futurism and explores ideas of European and American futurists. Chapter 2 presents a rationale, characteristics of futures education, outlines of courses and units, and methods of integrating futures studies into the curriculum. Chapter 3 lists innovative methods for teaching about the future. Goals, techniques for forecasting the future, and 20 activities are included. Chapter 4 is an inquiry into values and futures education. Sample questionnaires, inventories, and activities for implementation of value analysis are provided. Chapter 5, "Images of the Future Through Science Fiction," presents a list of relevant resources arranged by category: books suitable for student tests, basic works, advanced reading, general works, creativity, energy and environment, economics and work, education, life styles and changing sex roles, alternative realities, politics and government, technology, and simple living. Other topics are society and culture, transformation

and transcendence, international relations and world order, biomedicine and psychology, and population and food. Lists of multimedia kits, games, simulations, and periodicals are included.

Kenworthy, Leonard S., et al., eds. Helping Boys and Girls Discover the World: Teaching About Global Concerns and the United Nations in Elementary and Middle Schools. New York: United Nations Association, 1978. 74 pp. ED 201 538. Not available from EDRS; order from UNA, 300 E. 42nd St., New York, NY 10017 ($2.50).

This guide for elementary and middle-school teachers, curriculum specialists, and administrators answers 40 questions most frequently asked about global concerns and the work of the United Nations. Topics include the importance of teaching about the world and the United Nations; the need for beginning international understanding in the home; themes, problems, and area studies; methods and skills for studying international affairs; improving teacher education; resources; and research and evaluation. Specific questions refer to the study of water as an approach to world affairs, teaching about Africa and Asia, using art and music programs to foster the global dimension of education, effective use of resource persons, and simulation games. Other topics are international exchange programs, pen pals, overseas opportunities for teachers and students, bibliographies, and audiovisual materials.

Kepner, William R., Jr. Teaching Future Studies to Secondary School Students: A Curriculum. 1979. 82 pp. ED 187 622. EDRS price: MF01/ PC04 plus postage.

This publication describes a semester-long course developed for teaching future studies to secondary school students. The course is designed as a senior high social studies elective. Objectives are to help students recognize that change will occur, that change in one area will affect other areas, that the future can be influenced, and that they can help create a more desirable future. To implement the course, teachers must purchase or have access to additional print and nonprint materials. Students are involved in many classroom discussions, view films and slide shows, read journal articles, play games, and participate in many group projects. Two ongoing activities which take place throughout the course involve students in keeping a journal in which they react daily to activities and ideas and developing a cross-impact matrix on weekly topics. The course consists of five units. The first unit is an introductory unit which increases students' awareness of future studies and future thinking. In the second unit students examine population growth, pollution, energy problems, and other concerns of a global nature. Students are introduced to urban planning and the nature of formal forecasting efforts in the third unit. Unit 4 deals with highly personal choices and decisions the students may have to make in their own lives. In the fifth unit alternative life styles and the need for changing institutions and laws to meet changing times are explored. Also included in the publication is a bibliographic essay citing resource materials for teachers.

King, David C. Suggestions for Curriculum Development on Interdependence: Part C, 7-9 and Part D, 10-12. Global Perspectives: A Humanistic Influence on the Curriculum. New York: Center for Global Perspec-

tives; Denver: Center for Teaching International Relations, 1976. 55 pp. ED 135 692. EDRS price: MF01/PC03 plus postage.

These topics and ideas for infusing global perspectives on interrelatedness into the secondary social studies curriculum are intended to be used selectively by teachers. The major objective of the guide is to help students become aware of global interdependence and the implications and problems which accompany interdependence. Section 1 presents ideas for curriculum development for grades 7-9. Specific objectives and a background discussion are followed by topic-and-idea outlines of American history, state histories, developing nations, the study of culture, the biosphere, and political systems. For each topic, questions and explanations are listed, teaching techniques are suggested, and conclusions are offered. Section 2 presents suggestions for curriculum development for grades 10-12. Specific objectives and a background discussion are followed by topic-and-idea outlines of urbanization, economics, culture studies, environmental concerns, and nationalism. Activities, key ideas, questions, hypotheses, and concepts for each topic are presented.

Kinghorn, Jon Rye, et al. A Guide to Four Essential Themes: School Improvement Through Global Education. Dayton: Charles F. Kettering Foundation; Boulder, Colo.: North Central Association of Colleges and Schools, 1979. 155 pp. ED 171 622. EDRS price: MF01 plus postage. PC not available from EDRS; order from Kettering Foundation, 5335 Far Hills Ave., Dayton, OH 45429 (free).

To aid high school classroom teachers as they develop and implement programs on global issues, this guide outlines basic elements of an ideal global education program. Major themes are valuing diversity, understanding the world as an interdependent system, developing effective working relationships with others, and understanding prevailing world conditions, the process of change, and emerging trends. For each theme, information is presented on background, goals, implications for global education, implications for school improvement, and learning activities. Specific objectives include developing skills to identify and understand various beliefs, values, and cultures; knowing that differences in people's values are often due to history and geography; identifying how individual activities affect the earth; understanding that actions often lead to unanticipated consequences; and acquiring and using information about world issues, increasing understanding of self, and recognizing the humanness of all people. Suggested activities involve students in class discussion, reading and writing assignments, listing cultural differences among various age groups and cultures, brainstorming, listing cultural preferences, and arranging for class visitors. Activities involve teachers in cooperative lesson planning with other staff members, analyzing students' behavior, visiting students' homes, reporting on current international issues, and reordering the classroom environment to increase effectiveness with students.

Mehlinger, Howard D., et al. Global Studies for American Schools. Washington, D.C.: National Education Association, 1980. 85 pp. ED 183 456. EDRS price: MF01 plus postage. PC not available from EDRS; order from NEA, 1201 16th St. NW, Washington, DC 20036 ($4.50).

The book provides a rationale for teaching global studies, offers six model lessons, suggests how teachers can assess their own global studies programs, and cites additional resources for global studies. It is presented in four chapters. Chapter 1 states the rationale as the need to develop a global perspective in order to understand and function effectively in the world today. Schools have the primary responsibility for this development. Chapter 2 offers six lessons, which are designed for junior high school students but can be adapted for elementary or secondary students. Topics cover the relationship between human society and natural environment, communication, benefits and problems of industrialization, energy, differing cultural life styles, and human rights. Each lesson requires from one to two or more class periods and includes an introduction, objectives, suggested procedures, and student materials. Techniques include reading, discussion, role play, research, simulation, debate, and gaming. Chapter 3 discusses program evaluation, offering suggestions for establishing objectives in four areas: knowledge, abilities, valuing, and social participation. The final chapter lists selected resources for global studies, citing general publications, organizations, catalogs, guides, and directories. It provides checklists for helping teachers identify possible resources in their own community and evaluate materials for classroom use.

Switzer, Kenneth A., and Paul T. Mulloy. Global Issues: Activities and Resources for the High School Teacher. Boulder, Colo.: Social Science Education Consortium and ERIC Clearinghouse for Social Studies/Social Science Education; Denver: Center for Teaching International Relations, 1979. 163 pp. ED 179 436. EDRS price: MF01/PC07 plus postage. Also available from SSEC Publications, 855 Broadway, Boulder, CO 80302 ($7.95).

The book is an introduction to teaching about contemporary global concerns in the high school social studies classroom. It contains background and lesson plans for seven units in addition to 39 reproducible student handouts, annotated lists of other good classroom resources, and a guide to sources of teaching materials on global issues. Topics covered include an introduction to the concept of global awareness, world trade and economic interdependence, global conflict and the arms race, economic development and foreign aid, environment and technology, energy and natural resources, and human rights. For each unit, two lesson plans are offered, with suggestions for topics and courses, time allotment, instructional objectives, and teaching methods for introducing, developing, and concluding the lesson. Student handouts offer materials for the learning activities, such as relevant statistics and graphs, attitude tests, news media analysis, ranking nations, scenarios, discussion questions, decision-making and role-playing exercises, and case studies. Primary and supplementary sources are listed in an annotated bibliography for each unit, including such materials as books, films, simulations, games, pamphlets, and filmstrips. An appendix lists publishers of the classroom materials with their addresses.

Victor, David, and Richard Kraft. Global Perspectives Handbook. Bloomington, Ind.: Social Studies Development Center, no date. 43 pp. ED 115 558. EDRS price: MF01/PC02 plus postage.

This handbook contains eight classroom activities designed to

increase global awareness. For example, one activity about increasing global interdependence involves an analysis by students of their community to determine the extent to which it is related to the activities of foreign people and foreign-made products. Objectives and procedures are given for each activity. Charts, discussion topics, and masters for student handouts accompany some of the activities. Also included in the descriptions of some of the activities are sources--materials, films, and books--related to the topics for the teacher's reference. The activities are versatile and can be used at any grade level. The handbook concludes with ideas for teacher-developed activities.

Westerhoff, John III, and Shirley McCune. To Make a Difference: Planning for the Future. Teacher's Guide. Washington, D.C.: National Education Association, 1976. 37 pp. ED 175 793. EDRS price: MF01 plus postage. PC not available.

This resource guide for secondary students and teachers is designed to introduce futures planning concepts for democratic social change and the skills necessary for effective planning. The objectives are to help students understand the world realistically, to point out ways each person shares in world problems, and to instill the knowledge that they can make a positive contribution toward a solution. An additional aim is to offer a series of foundational learnings necessary for futures planning and to introduce steps to use in that plan. The teacher's guide outlines objectives for 22 topics, among them issues and causes, change and the power to change, learning how to be creative, creating alternatives, setting priorities and goals, framing objectives, finding strategies, and planning actions. Supportive learning activities are suggested for each topic: group essays, a debate, a mock trial, research, case studies, brainstorming, and evaluation. The student workbook contains activities reinforcing the concepts taught in each topic area. Sample activities include listing social problems and possible personal contributions to them, making deductions from a photograph, choosing one book to have on a desert island, ranking concepts, planning a personal utopia, setting social goals for the world in A.D. 2000, listing contributions and hindrances to those goals, and planning specific objectives and actions that might lead to their realization.

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